

APPALACHIA

DECEMBER 1958





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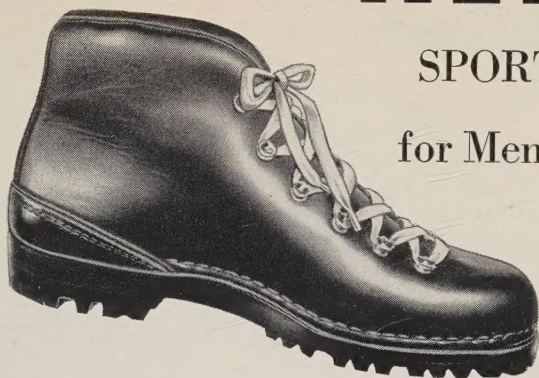
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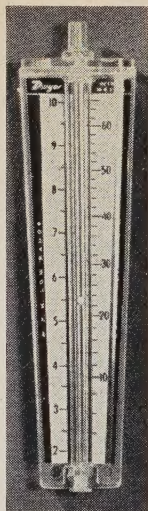
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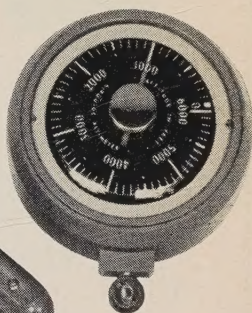
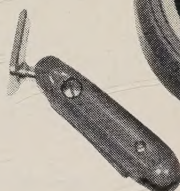
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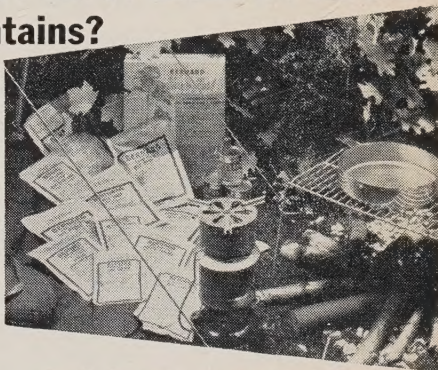
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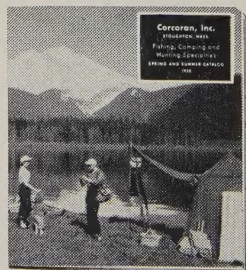
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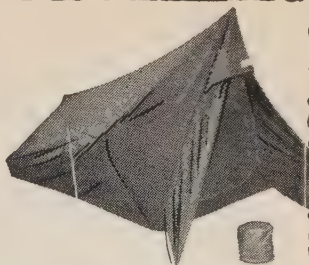
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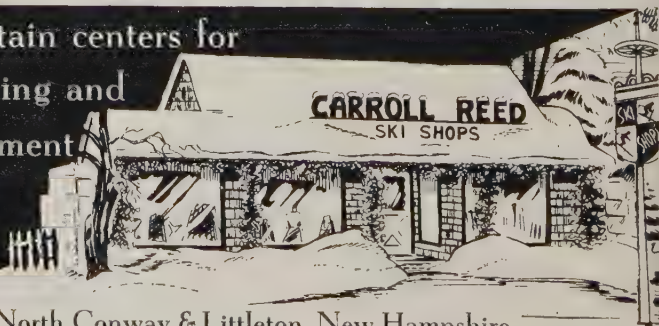
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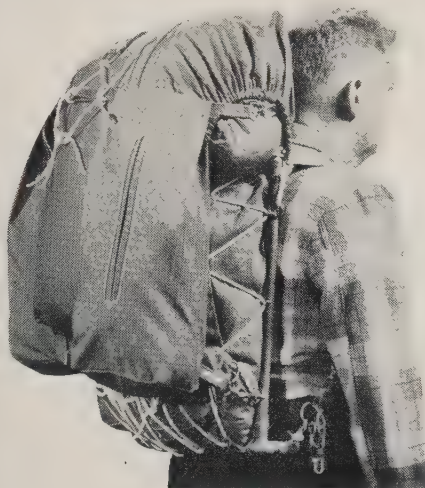
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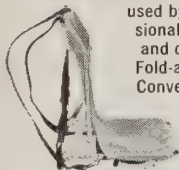


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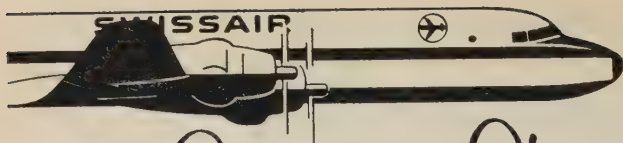


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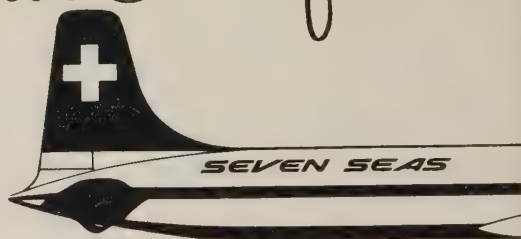


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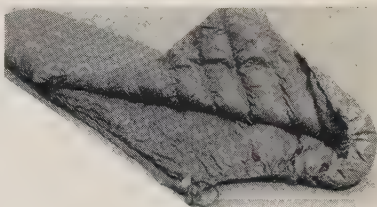
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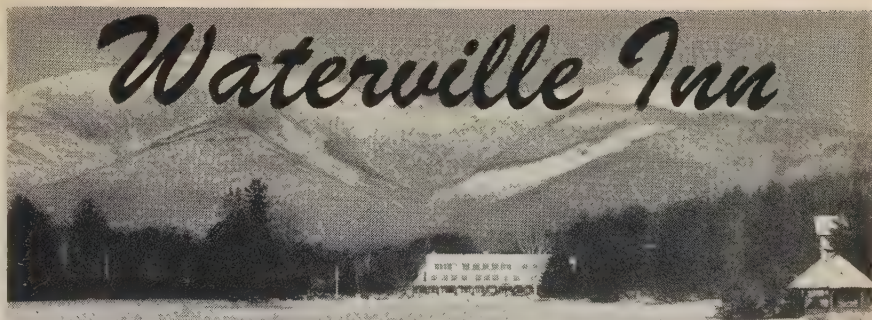
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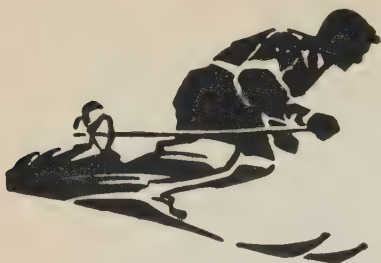
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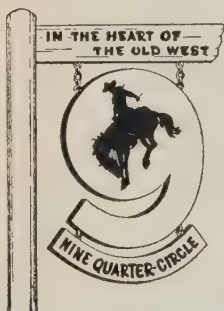
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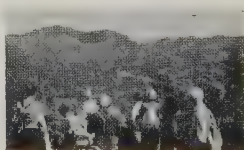
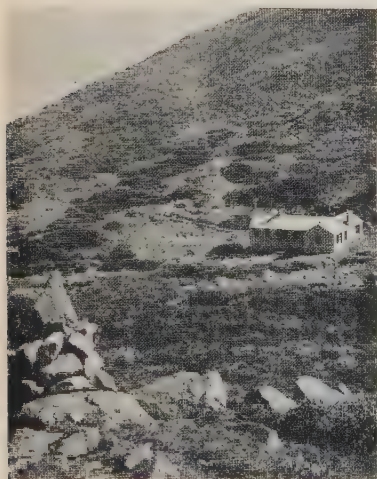
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APPALACHIA

DECEMBER 15, 1958

MAGAZINE NUMBER 127

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BONAVENTURE RIVER

by ARTHUR STANLEY PEASE

The roar of a northern river over rapids many and strong,
Where the bright spray dashes up at the bow as the boat darts swift
along,

And we follow on in the swirling trail, where our voyageur guides have
led,

Where the steep, dark banks, all cedar-clad, tower silently overhead—
Or a thrill to the heart as the boat leaps down through a narrow, wind-
ing race,

The gritting of teeth and the resolute look that comes upon every face—

Or a snatch of song as the rapid ends in a pool with a rockbound rim,

Where lordly salmon quiver in sport as the patterns of day grow dim—

Or a campfire built on a gravelly bar by the spruces' dusky shade,

As the curtain of darkness folds around and the edges of daylight fade;

With the distant rapid's song in our ears to lull to an early sleep,

On a couch of fir, in the ancient woods, piled fragrant and soft and
deep—

Ah! this is the toil that is rest to the soul, the struggle that brings but
bliss,

And oh that life were a summer eternal, eternal summer like this!

But the river will end in a bay, and the bay in a gulf and a stormy sea,
Where cedar and spruce and rapid and pool will be but a memory.

Then deep be my draughts, O soul of mine, as the waters of joy flow past,
For the summer dies and the autumn flies and the winter of life comes
fast!



RAVINE HOUSE PARTY, 1916

Guy L. Shorey

(See "Looking Back a Half-Century", pp. 162-9)

A TRIP TO KATAHDIN IN 1856

by HENRY I. BOWDITCH

The following story is taken from an unpublished manuscript entitled, in full, "Life in the Woods for a Fortnight on a Trip to Katahdin, Moosehead Lake, in the Summer of 1856". It was written by Dr. Henry Ingersoll Bowditch (1808-1892), a Boston physician and son of the famous Nathaniel Bowditch.¹ The original MS. was deposited in the Islesford Historical Collection at Islesford, Maine, in 1927 by Dr. Vincent Y. Bowditch, son of the author. (The Islesford Collection is now known as the Sawtelle Historical Collection and is owned and supervised by Acadia National Park.)

A typed copy of the original MS. was earlier made for the Bowditch family and a transcript of this copy has kindly been made available to APPALACHIA by Dr. Harold Bowditch. Our copy of this transcript was submitted to Mr. Wendell S. Hadlock, Director of the Farnsworth Library and Art Museum at Rockland, Maine, who has compared it carefully with the original and supplied some interesting notes.

We here print the story as written except for the following: (1) some paragraphs not bearing upon the progress of the trip have been omitted, in order to save space; (2) punctuation has been modernized and a few obvious slips in spelling have been corrected. Notes with the initials H.B. are by Dr. Harold Bowditch; those with the initials W.S.H. by Mr. Wendell S. Hadlock.

Besides Dr. Bowditch himself, the party consisted of his son Nathaniel (age 16), who was later killed in the Civil War, his nephews Francis, Henry and Charles Bowditch (14, 16 and 13 respectively), and a lawyer friend, John W. Browne. They left Boston on August 5, 1856, by steamer for Bangor, where they arrived the following day after a stormy voyage.—Ed.

AUG. 7. Started in a "drizzle" for Greenville at the foot of Moosehead Lake—we went in the cars to Newport and afterwards by coach. We were on the top of the coach; it was misty or rainy most of the day and we arrived late in the evening at our place of destination. There is no village, only two or three hotels and a shop.² Hearing that old "Uncle John Ellis", the guide, the Pathfinder and Hunter of fifty years in the woods, was at the rival hotel, I

¹ For further information on Dr. Bowditch cf. *The Life and Correspondence of Henry Ingersoll Bowditch*, by Vincent Y. Bowditch.

² Since 1856 the town of Greenville has passed through two phases: (1) the period of great lumbering operations in which Greenville was the gateway to much of the northern timberlands; (2) the more recent period in which Greenville is the center of sporting activity in the form of hunting and fishing. The present population of Greenville is 1889.—W.S.H.

party, as if he were really sorry not to be able to go with us. He gave us a chart of our path from the foot of Chesunkook Lake to Katahdin—the original of which may be found in my note book. I learned that Mr. Barrows had retained a young man at Kineo for our guidance, & as he had advised our bringing canoes with us, we bought one beautiful birch, which we subsequently named *Minnehaha*, and we hired another. We likewise engaged Mr. Z. D. Mitchell, or Zeb Mitchell as he was familiarly styled by his companions, to go with us as the other guide. He proved an invaluable aid to us. Without him our journey would have been a failure and perhaps disastrous.

Aug. 8. With these two guides we started at 9 a.m. August 8 in the little steamer for Kineo House. The sail up the Lake was pleasant & Browne had some conversation with Uncle John about the Indians. "I have always found them more honest than white men. They never steal from my traps. Nay", added he, "they have done for me what I should not have done for them. For often have they saved for me a bear skin; they have taken the animal from the trap and stripping off his hide have hung it out of harm's way to dry and be ready for me on my return along the trail." . . .

We arrived at Kineo about 12 & parted from Uncle John. We found a very comfortable inn just under the mountain, which seems to arise perpendicularly from the surface of the Lake, 750 feet in height.³ Having dined & consulted with friends, we found it necessary to hire one more guide & canoe, making in all three canoes, three persons in each. This number we subsequently found to be exactly the most appropriate arrangement. We had made a mistake, however, in bringing too many articles—trunks, etc.—& now were obliged to leave them all at Kineo, to be taken on our return. . . .

Aug. 9. We had intended to start in our birches up the lake at early morning, but the weather being still rough we waited. Finally at 9 a.m., there being no sign of a change of weather, we hired the sail boat to take our boats in tow & determined to get as soon as possible upon the West Branch of the Penobscot. A spanking breeze continued throughout our whole route and we should all have been drenched again had it not been for the enamel cloths which we used as cloaks.⁴ At 11½ we arrived at the

³ This mountain is now known as Mt. Kineo and is the mountain from which the Indians gathered their Kineo felsite. Archaeological excavations in this area have revealed that the Indians of Maine and New Brunswick came here for many generations and the southeastern slope of the mountain is strewn with boulders, the result of Indian workings. The inn, later replaced by Kineo Mountain Inn, was built on an old Indian camping ground.—W.S.H.

⁴ In speaking of enamel cloth the writer is referring to a painted fabric and more particularly to an oilcloth covering.—W.S.H.

head of the lake. During the whole voyage we were admiring the stalwart form & quiet sedate countenance of Louis Gile, who piloted our boat. Louis is one of the chief guides. He is supposed to know more about Moosehead Lake than any other person.

At the head of the wharf, we found the terminus of a wooden railway which had been built by Bogg & Strickland of Bangor for the accommodation of their own immense logging establishment at the West Branch.⁵ It is two miles long & very dilapidated now. A single ox—quiet, intelligent beast—is the locomotive power! Much more convenient & docile is he than any other species of power, for when he could not find a good path for himself in the customary track he would betake himself to the *wide wooden rail!* Our party walked ahead and sent back this peculiar freight train. It was nearly 5 p.m. before they returned with our luggage & to our utter consternation we found all our pork & meat had been left behind. One of our guides informed us that the landlady of the hotel at Kineo, thinking the firkin to contain eggs, had retained it! We were compelled to fall back upon our host of the West Branch—the leader of the ox locomotive—who supplied us with forty pounds of pork. As for a relisher in the form of smoked beef, that was irretrievably lost!

The day was so far advanced & the rain was pouring so violently, B[rowne] was ill & we all felt so sombre, that I told our conductor that we must ask for lodgings at his abode. And what was this? In the midst of a clearing of several acres, say about a hundred, and surrounded on all sides with the stumps of great trees charred by the fire that had been run over them, stood this Indian Reserve House.⁶ It is the well known place of retreat for the Indian, the lumberman & the weary traveller like ourselves, overtaken by storm & seeking a better shelter than the forest tree & the hemlock bough bed can afford. It is a log cabin. By a low door you will enter upon the main sleeping apartment. The floor—ill used by its numerous visitants—presents a heterogeneous collection of dirt & of holes, through which one can see his sweet mother Earth, somewhat begrimed, it is true. On each side is a long and solid plank about a foot thick raised for a seat, & behind each of these are the sleeping arrangements for visitors. These consist of bits of hemlock, old & exceedingly filthy-looking

⁵ Dr. Bowditch's trip was made after the period of timber speculation in northern Maine. The period of great activity in this particular region was in the thirties.—W.S.H.

⁶ During this period of time lumber operators erected small buildings for the use of Indians. These buildings were left unlocked, with a certain amount of provisions supplied. This was a courtesy extended to the Indians and other travelers who might find themselves in need of shelter and this particular house was one of those reserved for the Indians. At about this time many of the early Colonial houses of Maine had an Indian fireplace attached to an ell. The door to this ell was left unlocked and Indians passing through this area had the right to seek shelter there.—W.S.H.

"spreads" thrown hither & thither in tangled confusion. The idea of sleeping there could not enter the mind of any one who thought of cleanliness as next to Godliness. Between the two seats and as the central source of heat for the apartment was a huge cylinder stove, capable of holding large blocks of wood. It was evidently destined to be a favorite place of resort for the cold winter evening, where the old hunter or the Indian trapper might rehearse his feats of arms with the bear or of skill in shooting the moose, his long tramps in pathless woods, or hairbreadth escapes from flood or from rapids. Here too could the wild joke, or perchance the loud oath, rise upon the air—in perfect freedom.

Behind this main apartment came two others arranged in more civilized style, one for storage & for dining room, & the other for kitchen, where was a noble-sized cooking stove. Here was our destined camping place. It seemed a sorry place with which to commence our "life in the woods". As we sat by the open door, just far enough from it to get some air & yet avoid the rain, we looked sad enough, & doubtless many of us felt the despair of men who have made a mistake and yet are unwilling to confess the fact to themselves or to others. The lack-lustre eye, the enforced cracking of a joke, the miserable *thin* laugh, the occasional sigh of some of the real complainers of the party, the sad countenance of one who felt really ill but who was unwilling to add the smallest portion of his heavy burden upon his comrades, though unable to prevent the partial expression of it by the almost inevitable natural language of suffering—all these things, I must say, oppressed me deeply. To drive away care, and to afford some occupation, I proposed that we should arrange our enamel cloths with strings so that they could be tied around our necks and act the parts of umbrellas by day, as they would be our coverings by night. So we all sat down, six tailors in a row!, & passed quite happily an hour. All the while I was revolving in my mind how I could avoid sleeping in the dirty hole. There was one apartment which I have not described, viz., a magnificent barn half filled with hay. It suddenly occurred to me that there we had a most appropriate place for all of us & on the return of "Sabbatus", as he is familiarly called, (Simon Wakefield) the landlord, I told him we wanted to lodge there and to have a supper with an early breakfast from him. In the Haymow, therefore, we passed our first night, & we named it Camp Carry. Our sleep was delicious. Each one laid himself down on his camp blanket and slept as soundly, as well, as a brood of swallows, that had evidently become too large & too many for their little homestead, would allow us. . . . With all the noises, we enjoyed our camp mightily. The sweet odor of the hay, the fresh clear air of night, the freedom from the thralldom of forms, all won us completely, and when we awoke in the morning with the light of day peeping through the

cracks of the barn, we, by general consent, allowed that we never had slept sounder & never had felt brighter on first awaking. We were delighted, moreover, to find that the day was becoming fine. The clouds were breaking; the sun was preparing to peep forth. All nature harked on the new Sabbath morn! . . .

Aug. 10. . . . We are now fairly prepared to start upon our course down the Penobscot; it therefore seems not inappropriate again to allude to our party & our canoes. The party now consists of nine, i.e., six of us and three guides, with three canoes. We are all dressed in red flannel shirts without cravats or collars or suspenders. Our guides, similarly dressed, may be briefly described as follows: Zeb Mitchell, a quiet, sedate, prudent, extremely sagacious married man, leads the van as Chief Guide, in our beautiful canoe which we've christened *Minnehaha*. He is, without exception, the best man, take him for all in all, that could have been chosen, abating the fact that he knew nothing from personal survey of the lower half—and, as it will hereafter appear, owing to our change of plan, he may be said to have been personally ignorant of the latter two-thirds of our journey. Nevertheless, his many admirable qualities as a guide, his gentlemanly and kind inspiring words, made him as a tower of strength to us during every dark hour we subsequently met with. All honor to Zeb Mitchell, the excellent, the temperate, the sagacious! If by any means I can give thee fame, I will do so. Seated in the stern of the straw-tinged *Minnehaha*, with eyes, head, ears, shoulders & back all expressive of the deep attention you are paying to the duty that devolves upon you, lead us onward! Frank & Nat go with you.

Seated likewise at the end of the light blue craft which we have named *Nokomis* sits Tim Meservey, or Tim as we shall hereafter call him. Lithe as an aspen bough, tough as walnut, with long, black, straight hair & bright eye, rather high cheekbones & swarthy complexion, he rests as part and parcel of the craft that bears him. He has, by his own confession, been a wild youth—living with hunters & for many years a denizen of the forests, during the winter as one of the loggers on the Penobscot. His tongue is not always topped with celestial beauty, but needs restraint. An oath or a trace of filthy jest is rather more common, yet his merry laugh is irresistibly contagious, and there is much that is noble & generous in Tim. One is grieved to see so fine a spiritual & physical nature tending to grovel instead of rising to its true dignity of manhood. He has been the great Moose hunter of the season. With Browne in the bow and myself in the centre of this birch Tim follows in the wake of Zeb.

Finally comes Jack in *Hiawatha*, fat, easy, funny & selfish. He eats as much as any two but he declares that if necessary he can starve as well and all the while be merry as a cricket. Dashing and

bold and somewhat inclined to insubordination is Jack. Plunging forward through boiling water, while Zeb prudently and more satisfactorily picks his way, he sits with his comical and round figure, like a Chinese mandarin, in the stern of his craft, while out of it he suggests the jolly Bacchus or perhaps a tendency towards Silenus' shape. Jack makes himself free & easy everywhere. He talks with all & is quite satisfied with his own powers. He is a hunter & fisherman, has considerable business in Bangor & Boston, & when off from the water is settled down as a private citizen in a town not far from Bangor, with a wife to whom he seems much attached. He thinks Zeb too cautious. I think *himself* too rash. Charles & Henry are with him. Here's to the Jack Falstaff of the expedition!

At 10 minutes after 7 a.m. we started. I was so fairly wedged into my canoe by a barrel of crackers that was behind me that I felt my fate would be sealed were the birch to upset. However, there was nothing to be done; I *must* submit; & so I thought but little more upon the matter. Old Uncle John was there, he having encamped in a storehouse next to our cabin, & he gave us advice always to get out and walk whenever "white water" should appear, for the river was "in such an ungodly state" we might be swamped in attempting any rough places. A little incident occurred, while I was standing on the shore and after part of our party had fairly ensconced themselves in their respective places. Half in play & half in earnest, I proposed three cheers for Frémont.⁷ "Three cheers for Buchanan", shouted old John & Jack & Tim. Zeb said nothing. "If you are a Frémont man, you will never arrive at the top of Katahdin", cried Uncle John. Zeb heard the remark and, as we shall see, determined *he would* reach it if it were for nothing more than to prove his fealty to right principles.

Finally, all seated, we took leave of friends, well knowing that we should meet few if any men for many days.

Thus far I have made up this veritable history from reminiscences & brief notes. Hereafter I shall copy often from notes scribbled upon the spot, whether while gently floating over river or lake or while seated on shore.

10 minutes after 7 a.m. Just started. The sun is shining, for the first time for many days, & it comes to us glittering over the surface of the now swift-moving Penobscot. All hail to him as the Representative of that Divine Being who has heretofore guided and guarded us! The stream is about 15 rods wide. Tall trees, elms, poplar, spruce & fir, rising out of deep green shrubbery, line

⁷ John Charles Frémont, noted explorer, who made many trips to the Rockies. He was the unsuccessful candidate for the presidency, against Buchanan, in 1856.—H.B.

its borders. Nothing is seen save the woods, water and sky. There is entire silence save the sound of our paddles and of our own voices, all of which are subdued into harmony with the divine loveliness of the hour. A crane, engaged in his morning excursion for prey, sails sluggishly on before us. The landscape changes constantly with each turn of the winding river. Our canoes float gracefully, each having its peculiar characteristics. Leading the van goes our beautiful *Minnehaha*. Its perfectly new yellow bark, striped in its seams with dark pitch, its high prow & stern, its delicately rounded form and loftier gun wale, point it out as the most fitting leader. Browne watches her with admiration and declares she floats along like an antique Grecian galley. Following about 5 or 6 rods astern comes our *Nokomis* with its cerulean color, tight, & light as a feather, guided by our bright & roguish Tim. And bringing up the rear comes Jack in his little rounded, plump *Hiawatha*. Its hue is of purple &, like its helmsman, [it] seems bursting with new wine. It is smaller than the others & sits like a duck upon the water. Its form, though graceful & peculiar, is less fitted for speed than either of the others, as I found, to my cost, at the latter part of our journey.⁸

1/4, 8. [7.45.] We have come down with a strong current, of about four miles an hour, and now the banks appear covered with the same eternal verdure of the lofty trees and added thereunto are long trailing branches of clematis & the beautiful squaw bush with its clean white clusters of berries, dropping almost into the waters and growing with the utmost luxuriance. Tall dead trees stretch out their leafless branches from amid the general verdure and from them drop delicate pendants of grey moss. Some of these dead monarchs of the forest arise stately & solemn, others lean over towards the stream, while others still seem tottering towards their final fall. Echo answers to our cheer. The whistle of the boys comes back to them with renewed sweetness. The joyous clap of our hands sounds like the distant woodman's axe.

8.05 a.m. A Rip (sound of rushing water) is heard just ahead. It proves to be a large rock by the side of which we skim along the rapid waters. A solitary kingfisher flits across our way & soon after a couple of ducks attract our notice & we long to try our guns on them.

8.20 a.m. We have made five miles on our course and are passing a small island wooded like the shores.

9 [a.m.] Four ducks seen swimming across our bows. All excitement—calls for guns—but all of them loaded with balls. Little zeal for the hunt evinced by our guides. Some of us perhaps were

⁸ *Hiawatha* was made by the Penobscot tribe of Indians. The other two were made by the St. Francis Indians. The different tribes have distinct, well-marked differences in the architecture of their canoes.—Note by the author.

willing to have the birds escape. I had a sort of peckish feeling in my teeth. Meanwhile, we gave chase, with our paddles plying vigorously. When one of the guns had been reloaded & we came sufficiently near, the birds suddenly arose upon the wing & if they had had thumbs to put to their noses in silent contempt for us they would certainly have used them as they flew down the river. Two of them, bolder than the others, soon retraced their path & actually flew past us unscathed. We have no hunter-pluck amongst us although Tim is *the* Moose hunter of the present season.

10 a.m. We have this moment started from a landing at the mouth of Moose River, where we stopped for our first fishing. We all prepared our tackle, & I commenced my first fly fishing! Frank did splendidly and in a few moments took eleven chubs! I was last and after much endeavor arranged my rod and line with many struggles of benevolence & conscience against the idea of fishing "for fun". I met with my usual luck & got no bite save from straggling eel grass. At last, by chance, I observed the private mark that was written on my reel and which mark had previously escaped my notice. Was it an omen, or how happened it to have remained unseen until that moment? Whatever was the cause of my previous blindness, I took it as a significant indication that I must cease fishing, when I saw upon my reel written, as if by the hand of magic, the expressive letters "Ass".

10 1/2. A magnificent Bald Eagle has just sailed majestically & quietly above us. Tim says, "No American ever kills a Bald Eagle. I was within a few feet of one a little while since but I would sooner have shot off my right arm than to have fired at him." It appears that the noble bird, Representative of America, is held sacred by the *real* wood hunter of these parts.

12 m. Landed, fished & dined just above "Rocky Rip".

1 1/2. We have just passed the Rocky Rip and an intensely exciting transit it has been. Two series of rapids, about 1/4 of a mile long, form this Rip. The waters foamed & the breakers dashed over the whole width of the stream, reminding one more of the Niagara's rapids than anything else. Our little birches leaped over the laughing foam, like skimming waterbirds, occasionally dipping their pinions in the spray. One such passage pays for the trouble of the whole journey!

But this Rocky Rip was, as we soon found, nothing compared with the transits of Pine Stream Falls Rip, which we arrived at soon afterwards. Immediately after the Pine Stream enters the Penobscot the falls begin. We have made our first real "carry". That is, we took our packs on our backs and walked along an Indian trail that had been formed by the side of the stream. Zeb and Tim went forward to decide whether the birches could be "shot" along. Imagine nearly half a mile of boiling rapids, with

huge masses of rock frequently projecting & at times interrupting almost wholly the smoother currents & keeping the whole width of the river in one sheet of foam. The total fall, from 75 to 100 feet high & $1\frac{1}{2}$ a mile or more long, being composed of no one large cascade but a series of very broken rapids. Imagine yourself seated on a projecting rock at a bend of the current and looking up the stream. You will notice the decided slant upwards that the water's surface takes. A light mist, constantly rising from the crested billow, envelopes everything with a haziness, mightily suggestive of insecurity. It seems as if anything living were to dare to cross them it would either be *etherialized*, as the waves were, or driven deep into the surges to rise no more, save as broken fragments from the sunken rocks. Through such a place, Zeb & Tim decided to run each canoe. Tim, with his lithe, airy figure & streaming black hair, took the bow paddle. His Indian face,⁹ surmounted by a bandit-looking hat, his picturesque pink shirt & his earnest eye, all suggest the wildness of hunter life. Zeb, more sedate, a man of solid fineness, whose judgment, mature and quiet, is already leaned upon by his comrades, kneels in the stern. You see the frail birch just coming into view while rounding a corner which had previously concealed it. In the far-off distance the parties seem nearly buried in foam, & you watch, with some anxiety, their full re-appearance. On they come with the rapidity of a ten-mile course! They arrive safely in smoother water only, as it were, to dash onward with greater force towards a fissure between two rocks through which the current drives still more rapidly. Heading swiftly through that, they approach nearer to the spot on which you are seated. Tim's form becomes more distinct. His keen eye is seen fastened on each point of the course, ready to guide with the power of the human while the light canoe¹⁰—it leaps along and glances by directly under your feet. You salute the voyagers with cheers. Tim smiles but says nothing, & keeps his eye still straight onward. Zeb, more sedate, acknowledges the salute by taking off his hat & while waving it slips by. Three such transits we witnessed & I shall never forget them. When fairly seated again in quiet water I asked Tim what would have happened had they failed in the perfect control of the canoe. "We should perhaps have been drowned & the birches would have been stove to pieces." He then related that 5 or 6 years ago 4 men attempted the same passage in a bateau. Two of them were drowned—and the other two were saved after clinging to a rock for twenty-four hours.

Just below the falls, when we had resumed our seats, our birch

⁹ This is the only statement that Tim was an Indian, though it is indicated by his description, some pages earlier.—H.B.

¹⁰ The MS. is problematic at this point. Possibly some word has inadvertently been omitted.—Ed.

narrowly escaped swamping. As it was, we shipped a wave from a rock. It thoroughly drenched Browne & me & all our luggage. Soon after, we rode onward into the smooth waters of Chesunkook Lake. Here is a large trading farm for lumbermen. We stopped a few moments. The people were gratified to see us & asked if we had any mail for them. We entered their log cabin & were treated to a lunch of gingerbread, which the boys seized with avidity. On offering to pay the young & handsome cook, he replied, "No sir, all we ask is that you will do something similar in case any travellers fall in your path". After stopping about twenty minutes we again set out to go down the lake, preparatory



to encamping for the night. On a jutting point of land we saw an Indian encampment.¹¹ The situation showed the tasteful eye of the inhabitants, although it seemed hardly possible that out of the filth of the Indian habits anything of taste could arise. The covering was of cedar bark & in form resembled a sugar loaf, with the front opened nearly to the top.¹² On the shore by the side of the camp was a new small canoe, one of the most exquisitely delicate specimens of Indian work I had ever seen. We asked the price as we passed by. It was four dollars. Tim thought it would easily carry two men. I determined to buy it on my return as a trophy of our journey. But "l'homme propose, Dieu dispose", as we subsequently learned.

In about half an hour we came within sight of a pretty little sandy beach. Thither we directed our canoes & landed about 5½ or 6 p.m. We drew up our birches & I ran along the shore in

¹¹ Recent archaeological exploration in this area has revealed that it was used extensively by the Indians for many generations as a campground. The implements recovered indicate occupancy for several thousands of years.—W.S.H.

¹² This is the type of Indian dwelling usually found in the Northeast during the early Colonial period and capable of housing an extended family group. The framing of such a house was usually birch saplings placed in parallel rows and then the tops bent down and tied in bow-shape. The bark was then laced to the saplings. (Similar dwellings are illustrated in many Colonial writings.) The outer covering was usually birch bark, but our writer mentions cedar bark, which was often used when birch bark was not obtainable.—W.S.H.

search of a camping ground. The trees were noble in size & a quantity of dry timber lay scattered along the shore. I saw an opening between two of the largest trees, which, by its resemblance to a gothic arch, invited entrance. I found a large, almost level octagon, free from encumbrance and covered with a soft greensward. Tim declared it "just the place". Accordingly, all hands were called to work. Tim built the fire & prepared for cooking. Jack called the boys to cut down the young hemlocks & to bring their delicate & fragrant branches to him while he spread them carefully & evenly upon the ground. Zeb cut the forks & arranged the poles that were to serve for the support of our enamel cloths and our covering for the night. We all were busy as beavers for nearly twenty minutes and our first *real* encampment was made 23 miles from our departure. It is made like a "Boston Baker" without sides and as the fire, always composed of immense logs, blazes all night in front of it, the warmth to those who are in the middle is often *very oppressive*.

During our subsequent travel we constantly were meeting with the remains of former camps. The night we passed at this our Minnehaha Camp was very fine. The moon, though hidden somewhat by the woods in our rear, shone beautifully over us & out upon the quiet lake. Everything tended to refine & elevate the hearts of all. One circumstance alone had marred our day, and that was the tendency to vulgarity & obscenity noticeable on the part of two of the guides. But of this we hope we shall have no more, as I have spoken to Zeb & told him I cannot & will not allow of such conversation. We slept finely except that I was a little afraid of *draughts!* & had scarcely become sufficiently acquainted with the influence of open air encampments to be perfectly composed. I arose several times, likewise, to rearrange the fire, & while doing so watched the four boys as they slept quietly, as if at home.

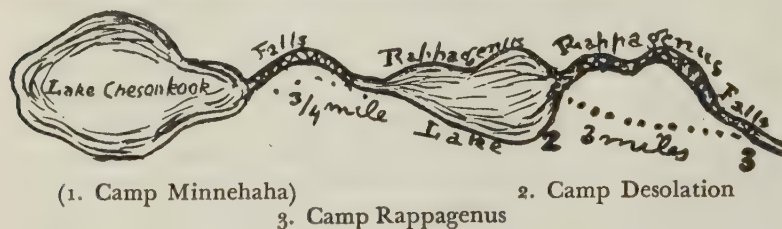
Aug. 11, Monday. At 4 a.m. I gave the call to prepare for our morning's labors. We stripped off our enamel cloths and left the framework of our camp for future travellers. We took our breakfast of fish, pork, bread and tea, and now, 7.20, are on our way down the Lake—Katahdin in a distance, looming up with its many heads, towards the East. Our journey this day was comparatively uninteresting—slow & tedious paddling over a large and long lake. Once a little mink excited our hunting disposition, but Tim could not get him although the hunter averred that the little creature was shot. At the bottom of the lake we found some falls and were compelled to carry our goods a distance of three-fourths of a mile.¹³ . . .

Having finally succeeded in getting over this carry, we sailed down Rappagenus Lake; and here I experienced the first impres-

¹³ This carry is around Ripogenus, the present site of the Great Northern Ripogenus Dam.—W.S.H.

sion of entire solitude & desolation. The afternoon had been gradually becoming more cloudy; the sun was lost; we were all fatigued by our work & inclined to silence, so that scarcely a word was spoken as we slowly paddled down the lake. On both sides arose high mountainous-like hills. Those on the west were generally covered with a rich second growth of forest trees. On the east they were of a lower growth, but tall dead trees arose in every direction up the slopes, dead from the loss of soil which in the lapse of time had been washed away, leaving the granite masses visible and little or no soil for the growth of the forest. Thus one after the other had died. Some of these stretched up their bare branches towards the heavy sky, held erect as in their pristine glories; others leaned hither and thither, continually toppling towards their destruction. Towards the bottom of the lake we discovered a clearing of several hundred acres; but, as we approached, we were surprised to find that a new growth of the Northern spruce was beginning to intrude itself upon the spots apparently cultivated. The house, beautifully situated on the summit of the hill, was evidently superior to the common log huts of the woodmen. It had a porch & various appearances of comfort & taste about it. Five or 6 noble barns were scattered over the hill. As we came nearer, it was apparent that all had been deserted. The porch, we could see, was broken, the windows knocked from the house, the chimney had disappeared & a hole in the roof alone told where it had been. One of the barns had been partially unroofed, & all of them bore the marks of Desolation & approaching ruin. We hurried onward to the bottom of the lake. We bathed & sought for a place to encamp in but found none. Meanwhile, the clouds that had been gathering became more dark, the wind arose more chilly, the surface of the lake was beginning to lash itself, preparatory to the coming storm. Under these circumstances we determined to leave all our luggage under one of the canoes & seek refuge at the deserted farm. Accordingly, we hastily arranged for our departure & stowing all the party into two canoes we paddled for about ten minutes over the ruffled lake and arrived near our place of destination. The first thing that struck us was the mingled luxuriant growth of fine English hay with wild strawberry vine & coarse shrubbery which with the evergreens above alluded to were beginning to bring back the place again to a state of nature. Soon the trail of some large animal was seen by me, who was ahead of the rest. These tracks became more numerous as we approached the house. The guides pronounced them to [be] the footsteps of the bear! We entered the broken porch & found all left to desolation & filth. Some dirty hay in one corner had evidently served as a camp at some previous time. The chimney, made of rough stones cemented with clay, seemed ready to topple down entirely as it had already

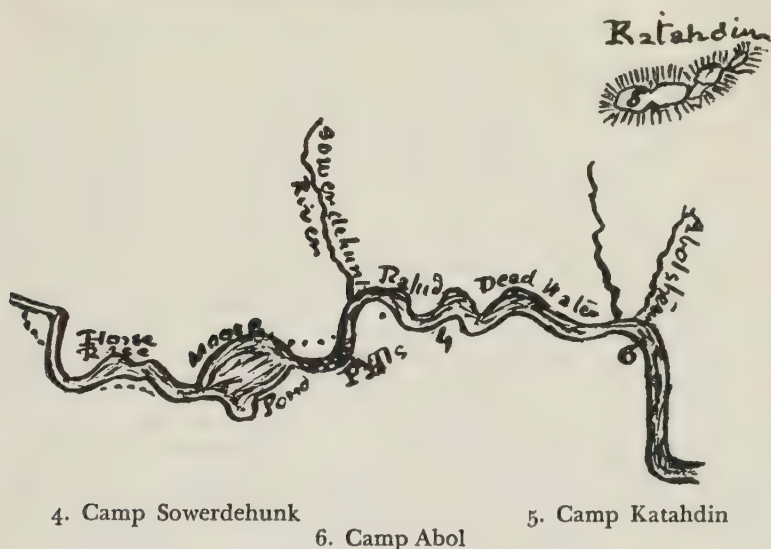
disappeared in part. Tim said it would be unsafe to sleep in the place. Disgust at the filth would have driven us from it even if the words of our guide had not forbidden us to think of remaining. We visited the barns. The desolation reminded us of Pompeii. Magnificent in size, well built, with high scaffoldings & strongly walled foundations, there they stood apparently just deserted. The doors were all gone. The scythe lay on the floor by the



side of its snathe; the plough, the upturned cart, the hay-press and a quantity of hay tied and prepared for the market, but musty and dark with age, lay scattered about. By the side of the ox-stall hung his chain, & the manure remained where dropped, as if merely on the morning of our arrival. Never in New England had I seen desolation so closely following upon desertion. We wandered from one barn to another & finally found a hay-mow nearly filled with hay. Upon this we ensconced ourselves for the night. But before retiring for the night I looked out upon the scene. A magnificent site it was that had been selected. I should have thought that alone would have saved the residence from desertion. Before us lay the lake, now in quiet beauty, the storm having spent its fury. Afar to the north we could see the Chesunkook waters. Across the lake stood in sombre hues the hills covered with shrubbery & tall leafless trees, from the midst of which projected in rugged sublimity huge masses of bare granite. To the East arose in solemn silence, with his head partly veiled in clouds, the glorious Katahdin! I would that I could express in words one tithe of the emotions that arose within me, or give even a faint idea of the combined loveliness & grandeur of the scene. Suffice it to say that there I enjoyed one of those rich communings with Nature & with men. Such as are not often now felt by men. In silence I worshipped the Great Spirit, the Father of all, who watches over the Red and the White Men and blesses alike all who seek him with reverential step amid the magnificence of his works.

Aug. 12. . . . Having taken our breakfast of fish & pork, etc., the former caught that morning by the boys, we prepared ourselves for what we anticipated & found to be the hardest day's journey during the course of our travels. We were about to enter upon a part quite unknown, except by fame, to any of the party,

not excepting the guides. Below is a copy of the plan spoken of [before], as given by Old Uncle John Ellis, the Pathfinder:—



It was of great service to us during our subsequent progress. In truth we had no other chart and with this, aided by my pocket compass, we went along quite easily.

To return to the record of our travel. We prepared for our hardest day's labor. Rappagenus Falls continue for the space of three miles and consist, I think, of three main falls with intervening, very rocky rapids. No bateau or birch could live in the upper half of them. The birches could not go in any part. No one who has never been in similar circumstances can have any idea of the amount of labor required.

It was here decided that we should leave behind everything bulky and provisions for six days alone should be taken. Two of these should be in each knapsack and ready for the Katahdin tramp. We subsequently found to our regret that we had not made a sufficient allowance for the time needed for going & returning. We should have taken eight days' provision as the smallest amount. Having covered up the luggage that was to be left, we took up our line of march. The carriage of three canoes for three miles through the devious & somewhat uncertain path of an old Indian trail—up hill and down, through bog & mire, over stones & through thick shrubbery, by the side of dancing, clear waterfalls, where every stone was slippery as ice, & through pools of muddy water where it was with difficulty we could prevent our shoes from being left behind—the carriage of anything through all of these obstructions & during a warm day one can readily

imagine must at any time be hard. Long will the Rappagenus Carry be remembered with a kind of horror by all of us. Guides & travellers alike were thoroughly wearied when, after a whole day's work upon the three miles, we finally laid ourselves down in a camp of wet leaves by the side of roaring falls. Before quitting, however, this passage let me say that we contrived to be merry, though no ludicrous event occurred. We lost our way at times while following the rather obscure trail which the wild Indians & log-men have left along the track. These Indian trails are deeply interesting to me. They consist of very narrow paths on each side of the Penobscot from its source down to the regions of civilization. At times they are hidden by bushes but generally, by keeping the eye fixed about ten feet in advance, we could recognize the old marks of depression below the adjacent soil. The guides were very keen in recognizing where men had passed, & we became much more skilful in consequence of this day's journey. These trails are interesting to us as the relics of the Indians, and as they usually follow the shortest courses may be presumed to have been used as pathways for centuries before the white man began to tread them. Our party sought them as the sole ways for transportation. For days to come we shall have no other tracks save these trails and the course followed by our birches in the waters of the Penobscot. . . .

Aug. 13. Thursday morning. I am sitting on the borders of the Penobscot, under lofty trees with the clear stream passing rapidly at my feet. Katahdin looms up proudly just in front of our camp. Our camp last night was delicious, although when we first came on there the rain was beginning to pour in torrents. The boys, at first clinging to their enamel cloths, crouched under the trees for shelter; but I soon, by perhaps severe words to all, let them understand that we must have no falling back, but that each must act for the common cause. I ordered all to lay down their cloths on the floor of our future camp & each one was directed to get forthwith by hatchet or knife the materials for our night beddings. In about 20 minutes we had a blazing fire & a stretched covering over our heads. The hemlock boughs, of which our bed was made, were damp but we cared little for dampness & we soon were fast asleep.

The day previous to this encampment was, take it for all in all, perhaps more delightful than any we had passed. It was full of excitement & not a little danger. On starting from Camp Rappagenus in the morning it was decided by our guides that they would run the loaded boats but that we should walk through the Indian path. Unable as we were to distinctly make out our path, we soon lost our way & by & by became separated into different parties, a course which I always endeavored to prevent but which, in spite of all effort, did occasionally occur. Two of our number

started in a "bee-line" to find the "blazing" as they went. They met with no success. I then determined to strike towards the water & force my way along the shore. After much difficulty & considerable anxiety (for part of the time I was out of the hearing of everybody, my loud hallo being returned unanswered to me), we arrived all in safety beside the still waters. Here we seated ourselves to watch the advent of the canoes that had evidently been detained. After resting a short time, the first canoe hove in sight gently guided by Zeb, and soon the other two appeared. And on this occasion, as on many others, we had reason to admire the skill of our guides. They manage in various ways—at times with paddle alone, at others they seize the pole & just as the canoe seems dashing to destruction it is stopped in mid career by pole, braced firmly against an offering rock. There it rests, momentarily quivering, until the prow is in the right position & then, either swiftly or at a subdued pace, it is allowed to glide by the obstacle that a moment before threatened its destruction. Often the guides jump into the boiling stream and lift the vessel from the place on which it is stranded; at others, they let each boat carefully down the stream by means of a rope while they jump from rock to rock & another with the pole guides the prow. With the best management, however, the birches are often stranded or perhaps, as was the case with Tim yesterday, the bow strikes and remains fixed. Immediately the rapid current whirled the canoe around & the prow became the stern. The boat was cleared from its fastening. Accepting the fact, Tim sprang immediately to his place in the new stern & sped onward through the surf! The more I look at & consider the Birch Canoe in its relation to the Indian, the more I am charmed with it. I wish I could give an idea of its beauty. A rough sketch below is all I can afford of it and its paddles.¹⁴ . . .



Having run through the Horse Race (see map) we came upon a placid lake which we know to be Moose Lake. And here again our experience was delightful. Uncle John had told us that moose would here be found in abundance. Accordingly, orders were

¹⁴ Although the writer has accentuated the upsweep of the bows, this canoe is typical of the Old Town birch-bark canoes of its period. The insert along the gunwale is decorated in typical fashion. The gores to accommodate the slight bow of the canoe have been cut and pitched in their proper places. For a more detailed description of an Indian canoe see "A Canoe from the Penobscot River", by Wendell S. Hadlock and Ernest S. Dodge.—W.S.H.

given to keep perfect silence during the whole transit. The lake is about five or six miles long & two to four broad. Endless verdure dotted the banks & slopes surrounding it. Numerous moose "logans" were soon visible in many directions. These inlets are more or less extensive, just at the edge of water, where quantities of thick grass grow upon which the animal feeds. These at times extended vast distances & in the warm nights of summer, when the waters are low, the silent hunter *can hear the moose dash into & bathe & browse upon them, even when at a distance of a mile or more.* One of these spots was very beautiful, as we paddled slowly past. A narrow opening led into a space nearly a mile in breadth of perfectly level green, except that here & there water was perceptible in it, & surrounding it were lofty forest trees, through long vistas of which we could occasionally get a glimpse of impassable wood. They seemed fitted by their glorious sylvan arches for the residence of Gods, & I could comprehend quite easily how the ancients were led to believe in wood nymphs and water deities, & in more modern times peopled such places with fairies. There was no sound of living thing, except the chirp of one solitary bird, heard during the whole passage. The solemn silence of the place had a similar effect upon the whole party. One after the other felt an irresistible impulse to sleep, although desirous of keeping awake to enjoy the scene. We seemed drugged by some fairy potion. For myself, in my endeavors to resist, I fell into a kind of enchanted sleep. I seemed to be floating amid green fields & over tranquil waters, drawn by fairy fingers in beautiful rainbow skiffs. Jack became a jolly River God, our beautiful *Minnehaha* was a nautilus shell, and the scarlet jackets of the boys, as they flitted dreamily before my eyes, were the delicate-tinged propellers of the little navigator. Surely that experience of an hour was a unique hour of my life!

But all things change. The roar of waters greeted our ears as we drew near the end of the lake and we hauled up at a carry where, the banks narrowing, the whole of the lake waters rush impetuously between two cliffs & pitch down 20 or 30 feet, forming decidedly the most beautiful cascade we had yet seen. The carry was quite short, but the blueberries which we had seen daily in great abundance were richer than ever before. Large clusters of the plumpest and sweetest kind could be gathered by handfuls. But alas! the black fly, which had been, up to this time, little troublesome, owing to the cold weather, became now very severe in their attacks, and they marred our stop. Having some hours of light before us, we pressed onwards and after passing some very rough water where we came near being swamped on one occasion, we arrived in a drenching shower at Camp Sourdehunk with old Katahdin directly in front of us, about six miles off.

[To be concluded]

LOOKING BACK A HALF-CENTURY

by GUY L. SHOREY

IN THE EARLY 1900's THE SNOWSHOE SECTION of the A.M.C. used to go to some hotel like the Iron Mountain House in Jackson, which would open up for the trip, for a period of ten days which always took in Washington's Birthday. We'd have 100-125 people. Besides our snowshoes, we had all kinds of equipment—ice-axes and snowshoe creepers. Mr. Osborne and some of the oldtimers used to get out different kinds of winter equipment. We didn't have crampons in those days but we had a variety of creepers, as they were called, strapped on more like a shoe over our Barker boots. A local blacksmith made us up these creepers, which were cumbersome and all, but we got up on Washington above timberline many, many times.

When we were at Jackson we would always plan for a special car on the railroad to take us from Intervale to Crawford's; there the car was set off for the day and the night train picked it up and brought us back to Intervale. On those trips sometimes 100 people would go up to the Crawford Station. Once there, we would divide into several parties; those who wanted to take the more strenuous climb did so and those who preferred some of the lesser climbs like Willard or Avalon were at liberty to do that. Because these trips were planned and arrangements made for the special car in August, down in Boston, when the time came we sometimes had some rather bad weather, as some might say. I remember plainly that one morning, when we got off the train at Crawford's, several of us went over to look at the thermometer on the station. It read 25 below zero, which, with the wind whistling down through the Notch, was rather cool. On that particular day I elected to go with those who were making the climb up Clinton. In that party there were men like Herschel Parker, who had already been on his trip to Mt. McKinley, and many other able climbers. The weather didn't make it bad as far as our being cool on the climb was concerned, because nobody had been over that trail all winter and it was hard snowshoeing; we were bodily very comfortable. We watched each other's chins, the bottom of the ears, and other places that might become white and need a little attention, but in general it was a very pleasant day. When

GUY L. SHOREY of Gorham, N. H., joined the Club in 1905 and is now a Life Member. He took up photography in 1898 and in 1900 became a professional. His beautiful White Mountain pictures, reproduced in all sizes from postcards up, are known to all who visit the region. Throughout the years very many of them have appeared in APPALACHIA, thanks to his never-failing generosity.

The following article has been tape-recorded from Mr. Shorey's spoken reminiscences.

we got to timberline and came up out of the scrub it was so terrifically windy and cold that only Mr. Parker and three or four others elected to go over the flat to the actual summit. The rest of us thought we would start a little fire down in the scrub, which we succeeded in doing, and then we tried to eat our lunch. The lunches were carried in little canvas bags tied to our belts and they consisted of various delicacies like sandwiches and always a nice red apple. That day the sandwiches had to be broken off by bits, and after we had held them in our mouths for awhile we could chew and swallow them. The apples, though, were like rocks; nobody could dent one of those.

We had a grand trip and when we got back to the station and the great big red-hot stove in the center of the room, the band around its middle became just lined with apples, which was very colorful. Not having color film in those days I have no picture of this except in my mind's eye. As the apples baked on one side they'd let us know by hissing a little, when we'd turn them around and bake them a bit on the other side.

One year, I recall, we had Dora Keen along, of Mt. Blackburn (Alaska) fame, and Miss Luther of the Grenfell Mission with her fur costume that she brought down from Labrador. People like that of course always made interesting party-mates.

I went on those trips for ten or twelve years, sometimes at the Eagle Mountain House and sometimes at Gray's Inn. Often we had overflow parties somewhere else because no one house was large enough to take the full party. And then there were extra parties that used to come to the Glen House or the Mt. Madison House here in Gorham. These were generally January parties and of shorter duration, but we did have some wonderfully interesting trips.

My first trip over the Range was in 1900. Since in those days it was thought wise to have guides, a party of us got Eugene Hunt from Randolph, a very able guide, and B. B. Bickford, whom everybody knew as Bick, of story-telling fame. We went up to the Madison Huts, where we spent one night, and then crossed the Range and came down by way of the Carriage Road on June 28. That was a beautiful day. On the 30th Curtis and Ormsbee met their death on the cone of Washington. They had been members of an A.M.C. walking party which was meeting at Crawford House. This party had all their plans made, with guides to carry the food and blankets and everything as was customary, to go up Mt. Washington over the Crawford Path on the 30th. When it came stormy on that day all except Curtis and Ormsbee went to the summit by train. But those two elected to go up over the trail just the same. When they got up on Franklin or thereabouts they met pathbuilders going down, who warned them of the weather and urged them to go back. But they took no warn-



A.M.C. PARTY ON GRAY KNOB, 1917

Guy L. Shorey



IRON MOUNTAIN HOUSE PARTY, 1913

Guy L. Shorey



Guy L. Shorey

CRAWFORD PATH REFUGE



Guy L. Shorey

CARTER NOTCH HUT, 1913

ing. There was communication between the summit and the Crawford House and those on the summit waited in vain for Curtis' and Ormsbee's arrival up there or for word that they had gone back to the Crawford House. The guides tried repeatedly to go out into the storm to look for them but everything was glare ice. It was a dreadful storm and yet only two days later than the beautiful day when our party had made our trip so pleasantly. After the Curtis and Ormsbee tragedy a small shelter was built on the trail above the Lakes of the Clouds. It was just a little closed wooden structure that three or four, but not more, could have crowded into. It stood there for only a few years.

After that first trip I made many, many others. One quite memorable one was at the time of the burning of the Summit House in 1908, on the 18th of June. We saw the fire from Gorham, from Prospect Rock down across the river here, and I took a picture which showed the glare on the mountain. The following morning very early a friend of mine and I left the Willis House here in Gorham, drove out to the Glen and in about two hours made a trip up the Carriage Road carrying a 5x7 plate camera, tripods and all sorts of luggage. We were the first ones to see the summit by daylight after the fire and I got many pictures before the train came up. As we got there the Summit House, the *Among the Clouds* printing office, the car barn that used to be at the end of the railroad, the old signal station and the stage office all lay flat and just smouldering in the morning light.

Since those days there have been many changes in the hut system. On my first trip up to Madison it was just a shelter; it wasn't supposed to be for the trampers' comfort, but just a shelter with bunks and stove. You made your own bough beds in the bunks. There were no blankets or anything, only what we carried ourselves. There was bunking room for eight, comfortable or otherwise, and I have been there when several parties landed at the same time in a storm and there were twenty-five in that hut for overnight.

I was with Warren Hart many days when he was Councillor of Improvements of the Club. He really opened up the Great Gulf area. At that time the Adams Slide, the Buttress and the Six Husbands Trails were made and later what we knew as the Six Husbands Extension, which went from the Six Husbands up to the Carriage Road. This has since been called the Wamsutta Trail. I went with Mr. Hart when we stretched the string for the path-cutting men to work by. I remember too the days when Ralph Larrabee was there and the Great Gulf Shelter was built. A crew from here, the Heath brothers, worked on that, and also built the addition to the Madison Hut when the original hut was extended. People thought there should be a ladies' depart-

ment as well as the old original hut. I was with Mr. Hart, too, when we went into the Carter Lakes and decided on the site for the present Carter Notch Hut. The first hut had been on the big lake. This was a lean-to type, right on the shore of the lake, and perhaps on some glorious night we'd lie there and watch the moon.

Then came a day in October when I went over the Carter Range with a party after a long wet period. We had hoped that the weather would change, but it didn't happen to, and before we were hardly out of Gorham we ran into rain. When we reached the Imp Shelter we found that a tree had broken in the roof and nothing was dry. But we spent the night there and the next day went over the Carter Range, which can be a wet trip. We finally got over to Carter Notch and there we found that the Carter Notch Hut had burned. There was no hut. Night was approaching and we were a wet party. But our good friend and guide, Bick, said that he knew of a logging camp on the trail down towards Jackson, so we hied ourselves down, not a great distance, and spent the night there.

After that they built a log cabin in Carter Notch a little way up from the shore of the lake. It was quite elaborate, since it had a big fireplace. This wasn't anything that was too practical; if you used it you had to stay outside because the smoke didn't make it comfortable inside. Nevertheless it was nice to look at—a great big fireplace.

Of course in all these early days we carried our blanket rolls and our food. The ladies wore ankle-length skirts and I remember very plainly that people were quite shocked when the first of the lady trampers wore good full gym bloomers. I've got pictures somewhere here of a tramping party consisting of ladies and gentlemen; one lady with a nice long skirt, which was all pleated and very stylish looking, was clambering up through the Ice Gulch.

On the winter parties many times we went into logging camps and had a camp dinner. This was long before the present elaborate camps that are run with a chef and all the best of food, with refrigerators and everything. In those days we thought nice baked beans, often baked in the ground, were very good, and bread with plenty of molasses on it in place of butter. There was no sugar for your tea or coffee and the coffee wasn't percolated, but still it was coffee.

We had grand trips from Randolph, too. I remember that on one winter party, when we were staying at the Ravine House, we went over on the noon train from Appalachia Station and walked up Owl's Head on Cherry Mountain. It was rather a steep climb, with heavy snowshoeing, and it took us so long to reach the top of Owl's Head that we realized there would be a big rush to get

back in time to catch the afternoon train. Somebody was wise enough to suggest going over and down the Cherry Mountain slide, which at that time hadn't grown up as it has now. The first few of us wallowed down the slide in deep snow. Those who followed us came faster, and the later they were the faster they came. In places there were ledges that were icy and there they really did speed up, but we got down to Cherry Mountain Station in time and back to Randolph. And another time I remember going up through King Ravine. We snowshoed up into the bowl of the ravine and then found that since it had been a winter with not much snow the going up through the ravine and over to the huts was just ice. The Madison Huts provided shelter in the winter but it was not a very comfortable place to stop in for long, because if you tried to start a little fire in the stove you needed an umbrella—the frost all over the interior would drip like regular rain. That day we had our lunch out in front of the hut in the sun. Then we had to use our snowshoes again down the Valley Way and out to the Ravine House.

But those winter parties were marvels to me because in general they were made up of people of both sexes who worked in offices and in teaching and all such professions and then they'd come up there and put in a week of strenuous climbing. And they weren't all young and vigorous people either. The Bicknells were a couple considerably older than the rest of the group and Mr. Barber was another great trumper who tramped with us on those winter trips until he was nearly eighty.

I used to go over to the Iron Mountain House a day ahead, the day before the trip. It was a long way to Jackson in those days. Pinkham Notch wasn't plowed. From Gorham I'd go out on the noon train of the Boston and Maine to Jefferson Junction and wait around for another train coming down on the Maine Central. About four or after in the afternoon we'd get over to Intervale and be met by a team and taken to the Iron Mountain House.

On one trip there was to be a bronze memorial tablet to Walter Davis, the founder of the winter Snowshoe Section, placed over the entrance to Black Mountain Tower. This was a sturdy tower built of big logs. Howard Jackson and Frank Mason, who was later president of the Club, came up from Boston a day early and I went over to Jackson, too. We started out from the Iron Mountain House in the morning and went by sled as far as there was a road open up towards Carter Notch. There we got a sap sled with wide runners and we loaded on our bronze tablet, which was no light affair, and all the tools to erect this tablet and tackle to pull it up, because it was going up quite a way and we had no ladders. Just after we left a storm started; I was never out when it snowed harder than it did that day. Although it was cold as

well as snowy we got that tablet up and all finished in good shape, and returned to the Iron Mountain House about 5.30 or 6. We had expected that everything would be ablaze with lights because the party were supposed to have come at 1 o'clock in the afternoon. But the place seemed dull, and when we went in Mr. Meserve said the party hadn't arrived. Word had come that the train was stormbound, and all that the passengers had to eat was the lunch they had taken with them. We sat around all evening while Mr. Meserve kept the crew and the kitchen operating until the crowd got in, and then we all had a real feed about 1 o'clock in the morning. They'd been on the way from Boston all that time.

In those days we did things very differently because we went by horse-drawn sleds. We climbed not only around Jackson but drove to Stairs Mountain and Stanton and Pickering and a lot of others that maybe aren't much climbed nowadays. We'd be gone all day. Going to and from the starting point we'd ride in those sleds with hay in the bottom and blankets over us and sing at the top of our voices.

To go to Pinkham Notch we'd get up in Jackson before daylight, have an early breakfast, then pile onto the sleds and drive up as far as there was a logging road open. We had to go early so we wouldn't meet logging teams coming down. When we got to the Oxbow, way down below Spruce Hill, we'd jump out, don our snowshoes and finish the trip up to Pinkham on foot. There was no Pinkham Notch Camp in those days; there was a big birch tree with signs on it, and that's all. From there we'd go up into Tuckerman's and sometimes up over the headwall to the summit, but many times we'd just go up into the ravine, play around and take pictures, and come back to the Hermit Lake Shelter for lunch. The shelter would be snowed in, but perhaps you could get over the drift and roll back in out of the wind and eat inside.

Dora Keen was just a little small person. She had told us of her Blackburn trip and, as you'd think, they went through more or less hardship, but when she went out on ordinary trips around on the lower slopes she always seemed to be so fussed by all those little things, like branches slapping her in the face and so on. Going up into the ravine she was awfully bothered by the tramping conditions, but just as soon as she got there and looked up onto the headwall she was rarin' to go, and she did go, and everybody followed her, even though some of the others might have liked to say, let's not try to go way to the summit. She cut steps and went up and nothing stopped her. Some people in tramping let little things bother them but when there is really work to do they are equal to it. We never had any serious troubles on any of our trips.



Guy L. Shorey

DORA KEEN HANDY

Iron Mountain House party, 1914



Guy L. Shorey

JESSIE LUTHER

In fur costume from Labrador, 1914



Guy L. Shorey

LUNCHEON

Iron Mountain House party, 1914



Guy L. Shorey

SNOWBIRDS

Eagle Mountain House party, 1918

On one occasion I got a wire from Fred Maynard, who said that the White Steamer people had all arrangements made—he had made them—for a car to come up through Jackson and he wanted me to come down to Dover on the train with my cameras and be the first to ride up through the mountains in a White Steamer. Of course we had our climbing schedules all made and I hesitated to go. But I thought I wouldn't disappoint Fred, so I went. I arrived at the hotel in Dover on Saturday noon or thereabouts and then I waited and waited and the afternoon wore on and finally word came over the wire that the White Steamer had got stuck in the snow somewhere—and I was stuck in Dover. And all the crowd having such a good time up there in Jackson! I couldn't get out because there were no trains on Sunday. The train that I went up on, on Monday, passed the train that was taking the party back to Boston. And I said, that's the end of my first winter trip through the mountains in a White Steamer.

It was quite different in those days from having all the roads accessible so you can drive through the notches and stop at Pinkham and have something to eat and start off all warm from there. But I don't know that they have any more fun than we used to in what I'd call the good old days.

EPITAPH

Here lies the clay
Of G. Segrè
Who failed to clamp on
Tight his crampon.

ARTHUR FREEMAN

THE WINE CASE

by JOHN GELLNER

ANY VISITOR TO FRANCE, provided he has strayed a few paces from the stamping grounds of the tourists around the Champs Elysées and the Place de l'Opéra, will come to see those very French pieces of equipment, the wine cases. They are rough-hewn wooden boxes with, instead of a lid, a wicker-work of staunch wire into which the wine bottles are stuck bottoms upwards, usually two to four dozen of them. It is a simple and efficient means of shipping the stuff, and as the consumption of it is prodigious, full wine cases can always be seen behind the counters of the *bistros*, and empty ones around the back doors. Never would I have thought that one of these stained and sour-smelling boxes would one day play a short but all-important role in my life.

It is more than thirty years ago that for a few months I was a summer student in Grenoble. That is a city where one just must become a mountain climber—the Alps of the Dauphiny with their black rock faces and glittering snows beckon all too temptingly from across the racing waters of the Isère. I, too, succumbed to the spell. The little extra money I had was gone after I had bought equipment and provisions and had paid the guide who conducted me on my first, exhilarating climb of a great peak. From then on I continued alone. I knew nothing of the dangers of alpinism, but Providence looked after me on my lonely scrambles across crevassed glaciers and up steep rock.

In my suicidal way I had succeeded in scaling a couple of minor peaks when, one morning, my luck ran out. While trying to reach the Col des Écrins I got entangled in some smooth rock slabs well away from the gully which leads to the pass. I did not have the sense to turn around while descent was possible and, after I had heaved myself onto an overhanging rock, found that I was on a tiny platform beneath an absolutely unclimbable wall. To try to get down the way I had come must have led to my tumbling several hundred feet to the glacier below—even I could see that. After a few minutes of indecision fear gripped me and I began to shout for help. Almost immediately there was a reply. By great good luck, a Swiss party, Walter S. and his fiancée, were hacking their way up the ice of the gully. I was hidden from

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their view, but Walter, a superb climber, soon found me and brought me down with the help of the rope. I was invited to join them, and on the following day, in glorious weather, we stood together on the highest peak of the Dauphiny, the Barre des Écrins. My heart beat with joy: here I was, amid all this splendor, on top of one of the giants of the Alps and—best of all—with friends with whom I could continue to drink from the heady potion of mountain climbing.

The end of Walter's holidays approached. He wanted to crown a wonderful climbing campaign with the ascent of the Meije, the most famous peak of the group (famous not least because of its reputation as a man-killer), long besieged and not conquered until twelve years after the Matterhorn. Walter must have had his doubts whether a girl and a rank beginner would be proper companions for such an enterprise, but he was not a man to be deterred once he had set his mind on something and so, one morning at first light, we set out from the Promontoire Hut. The sky was clear, but it was unusually warm—water was dripping from melting snowpatches at four o'clock in the morning at a height of 10,000 feet, a bad sign. There was another party on the mountain, an Englishman with his two guides. They were an excellent team, very much superior to ours, and they were soon far ahead of us.

With only one experienced man on the rope, scaling the successive steep pitches of the ordinary route of the Meije was laborious and slow business. I was so absorbed in the work at hand that I hardly paid attention to the change for the worse in the weather. Clouds began to cover the sky. On the icefield of the Glacier Carré, above the great lower wall of the mountain, cold, wet, swirling mists enveloped us. The wind rose. And when we were on the very last pitch beneath the summit, an overhang called the "Capuchin's Hat", the storm broke with terrifying fury. The gale almost tore us from our holds. The hail beat a furious tattoo. In a moment our goggles were iced over, our rope frozen stiff and barely manageable.

"Forwards", Walter shouted through the howling wind as I stumbled up to him at the cairn of stones that marks the summit. "You're first. That way . . .", and he waved his hand in the direction of the east ridge which is the normal route of descent.

To reach the Aigle Hut, one descends first a very steep wall—in part rappelling on the double rope—to the narrow notch of the Brèche Zsigmondy. Then follow four sharp rock teeth; the Pic Central of the Meije, a wild beak of stone; and beyond it another sharp notch. Here one leaves the line of the ridge to descend a flank of rock and snow and an extremely abrupt icefield to the Tabuchet Glacier. The hut, perched on a little rocky outcrop amid the snows, is another half-hour farther down. Altogether,

in good weather, it takes between three and four hours from the summit of the Meije to the hut, all but the last walk across the glacier being difficult climbing.

We took ten hours and we did not reach the hut. Even now, after three decades have passed, the memory of our struggle against the unleashed elements, the suddenly hostile mountain and our own growing weakness stands out in my mind as if it all had happened yesterday. I can see myself tugging desperately at the frozen rappel rope that would not run through the loop. I can feel the stabbing pain when with bare fingers—my woolen mittens were soon torn to shreds—I tried to hang onto the icy rock. I hear the shriek of the gale through the notches of the ridge, the rumble of falling stones, the eerie whistling as from a gigantic aeolian harp that came from the fog-shrouded depths at our feet. Above all, there stands out in my memory the heroic figure of Walter as calm, purposeful and commanding he fought for the lives of all three of us.

"John", he would call down, "you can let yourself slide to that little step just to the right of you, I'm holding you. Fine. Now get into the crack beneath—clear the snow out of it with your axe. All right—just keep moving as fast as you can—don't worry—I'm holding . . ."

And to the girl:

"Courage, Liesa, all will be well—you're safe between the two of us and we'll get out of it all right. Just hold on a little longer—keep your chin up, darling . . ."

Poor Liesa, who had stumbled along after a fashion for the first hour or so of the descent, collapsed completely once we were forced on to the razor's edge of the ridge. She was unable to keep upright in the raging wind and so she hung, her feet scraping on the ice-covered slabs of the mountain flank, her fingers convulsively clutching and then just as suddenly releasing some hold on the crest of the ridge. Her eyes were closed, strands of hair were frozen where they had been blown across her face from underneath her woolen cap, her movements were spasmodic. Walter was pushing her forward while at the same time he belayed me, who was leading as best I could.

Night had fallen when, at long last, we reached the upper rim of the icefield above the Tabuchet Glacier. There should have been an iron piton and loop around here, but we could not find it, and so we sacrificed Liesa's ice-axe—it was just dangling uselessly from her wrist anyway,—drove it into the ice and rappelled from it.

"Slip into the big crevasse at the foot of the slope", Walter told me. "Don't worry, I'll hold you on the other rope. Try to hack out a platform inside where we'll be sheltered from the wind.

We'll have to spend the night there. To try to find the Aigle Hut in the dark would be like looking for a needle in a haystack . . ."

If the day was filled with terror, the night was worse. At first I kept myself occupied and tolerably warm by chipping away at the ice to enlarge the little shelf, ten feet or so beneath the lip of the crevasse, on which we were perched. But I had not much strength left and soon I was too weary to swing the axe. From then on all I could do was keep myself from falling asleep, forcing myself to stamp my feet, wriggle my toes in my frozen boots, beat my arms against my numb body, in a desperate fight against the cold that was threatening to extinguish the low flame of life still burning in me. At my side, Walter was just as desperately trying to save Liesa. He could not keep her on her feet, but he was kneeling by her as she lay huddled on his waterproof spread on the icy ledge, and he kept rubbing her limbs and face with unflagging perseverance. He must have been dead tired also, yet throughout the night he remained the leader of his pathetic little crew. I am afraid that I did little to support him, except perhaps by not asking him to do anything for me.

After midnight the cold became wellnigh unbearable. My whole body shook and I could not keep myself from groaning with pain. At first I had prayed for deliverance; now I was praying for a merciful, quick death.

Yet when the first ghostly, greyish light appeared in the icy slit above our heads we were all still alive, although Liesa was unconscious. Presently Walter turned to me and handed me his compass.

"The hut must be due northeast of here. Perhaps the Englishman and his guides will be there. At any event, you must try to get help. I'll stay with Liesa . . ." There was a thin smile on his drawn face. "I'm sorry that your first climbing season had to end so unpleasantly, John. Good luck."

I was too inexperienced and too numb to realize that what Walter really had in his mind was to give me a chance to save my life. With visibility nil, and in the raging snow-storm, there was no hope of finding the hut. But he undoubtedly counted on my stumbling on, always downward on my compass course. With great good luck I might get beneath the level of the storm and thence into the valley. Admittedly, those were long odds, but I was lost if I stayed there any longer, just as Liesa was lost, and he too if Liesa did not die very soon. As all this did not occur to me at the time, I merely shook the proffered ice-cold hand and scrambled laboriously out of the crevasse.

Emerging into the storm was an experience such as a First World War soldier must have had when "going over the top". I was almost bowled over and had to bury my face in the sleeve of

my coat in order to breathe. The driving snow was so thick that when I turned I could see no more than the last two or three of my footprints. Exhausted as I was, I could barely drag my feet through the snow, but I kept on struggling forward like an automaton, empty of thought and decision. After a while the slope steepened. I was too weary to take precautions and stumbled on until the inevitable happened: I lost my footing, fell and began sliding down the snowfield on my back. I could have stopped the fall—at first I was not sliding very fast and my ice-axe still was held to my wrist by its loop. But I was beyond caring and I did nothing to save myself.

The tempo of the fall increased and some fold of the ground whirled me about onto my side. Then, with a crack, I hit something solid, and suddenly I lay motionless in the snow. I do not know how long I remained there, but at last my head cleared and I looked about to take stock. I saw that I was pressed against some wooden frame half buried in the snow. It was a big, empty wine case. Somewhere above me was the Aigle Hut!

Summoning my last reserves of strength I scrambled upwards, following what I hoped was the line of steepest slopes. Soon I felt stones beneath the snow and then I got a fleeting glimpse of something big ahead of me, even though at first it was only a barely perceptible darker patch in the grey mists. A few more paces and I flung open the door of the hut, to be greeted by a startled cry from the Englishman who, huddled in blankets, was brewing tea on his Primus. On the wooden boards of the rough bunk lay the two guides, asleep.

In the afternoon, my companions having been brought to the hut and the storm having subsided, I was descending to the valley with the Englishman and one of the guides in order to summon stretcher-bearers, for Liesa was still in a bad way. As we came to the derelict wine case we paused and I had a last look at the old, ugly, blessed box which a few hours earlier had saved three lives. A hundred yards or so farther down the slope there were the gaping mouths of open crevasses.

WHITE MOUNTAIN LANDSLIDES

by EDWARD FLACCUS

ANYONE FAMILIAR WITH THE WHITE MOUNTAINS is acquainted with the scars of past landslides which mark many of the steeper slopes. Periodically, in the past, curiosity has been aroused by the catastrophic nature of certain slides, and there are a number of detailed descriptions of individual ones. Most of these descriptions have concerned four famous slides: the South Tripyramid slide of 1869, the slides on North and South Tripyramid in 1885, and the Cherry Mountain slide of 1885, which killed a man. Certainly the most famous slide, though one with no accurate description because of its early date, is the Willey slide of 1826, in which an entire family of seven and their two hired men were killed. This disaster did much to arouse and sustain a general interest in slides.

More recently foresters have been concerned to reach a more thorough understanding of the problem of landslides in this region. It would be misleading to claim that slides are of great economic importance in the White Mountain National Forest. Nevertheless they are of some importance in their effects on human activities and the use of resources. They have at times been the cause of some damage to roads, railroads, trails, recreation facilities and municipal water supplies. In two instances they have claimed human lives. In a less direct fashion they play a part in stream erosion and run-off.

Geologists apply the term "mass movement" to all downslope movements of mantle which are directly controlled by gravity, excluding those dependent on the common transporting agents: streams, glaciers, wind and waves. There is a wide variety of types, ranging from imperceptibly slow movements such as creep and solifluction to the rapid, often catastrophic kinds of avalanches and landslides. Sharpe (23),¹ in a first-rate study dealing with all mass-movement phenomena, has described the various types and presented a useful classification of them. The characteristic type in the White Mountains is what he calls the "debris avalanche".² According to his description, this type has a long, relatively nar-

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¹ The numbers in parentheses apply to the references listed at the end.

² The term "landslide" he restricts to the drier movements that involve sliding primarily. In this paper, however, "landslide" is used in a general, non-technical sense to cover the debris avalanche.

row track, occurs on steep slopes in areas of humid climate, and is almost invariably preceded by heavy rains. The initial movement and progress on the steep upper parts is by slippage, sometimes on bedrock, sometimes within loose debris or soil. The movement then changes to flowage on the more gradual slopes below. High water-content is characteristic. Sharpe notes that the debris avalanche is common in the White Mountains, the Green Mountains of Vermont, and the Blue Ridge Mountains of North Carolina. The type also occurs in the Katahdin range, the Adirondacks, the Berkshires, and the Appalachians of Virginia and West Virginia. There are undoubtedly many areas of the world where this kind of slide occurs.

In the present study the limits of the region included were arbitrarily set. They are formed by Franconia Notch on the west, the Maine border on the east, and the bounds of the White Mountain National Forest on the north and south. Two slides outside this area (those on Mt. Starr King) were included because one of them was known to have come down in 1957 and was visited approximately three weeks after its occurrence. There are many slides on Mt. Moosilauke, but limitations set by time and distance required their exclusion.

Early in the study all slides showing up on aerial photographs (1954 series) were transferred by manual measurement to topographic quadrangle maps, thus locating over 500 slides. In the field, observations, measurements and plant collections were made on 29 slides. Pertinent information on past slides, including specific dates of occurrence, lumbering and fire history, etc., were accumulated from many scattered sources in the extensive literature of the White Mountains.

SLIDE HISTORY

There is little in the way of descriptive accounts until late in the 18th century. Belknap, in his valuable history of New Hampshire (1792), while he does not mention landslides, does refer to the "birth" of New River, in Pinkham Notch, during a great freshet in October, 1775. Subsequent investigation has indicated that this phenomenon was actually a change in course of the river flowing out of the Gulf of Slides, the change in course apparently being caused by landslides in the Gulf which brought down debris and dammed a lower section. During a subsequent freshet in 1826 the river broke back into its regular course. (Pickering, 21; Hart, 11.)

Timothy Dwight traveled through Crawford Notch in 1797 and noted long, narrow gullies where the precipices had been washed bare from mountain top to base. (Dwight, 7.)

Farmer (8, 1823) mentions the numerous "slips" visible on the



A.M.C. Collection

SLIDE ON NORTH TRIPYRAMID IN 1885

Note man slightly below and to the right of center



Edward Flaccus

FRANCONIA NOTCH, SOUTH SLIDE

Taken from Cannon Mountain



Edward Flaccus

THE WILLEY SLIDE IN 1957

Location now marked only by

mountains of the Franconia Notch area, stretching from near the summits to the bases of the mountains. He also mentions two large gulfs in the north part of the town of Lincoln, made by "an extraordinary discharge of water from the clouds in 1774". It is possible that one of these was the Flume.

There are a number of references to the big slide which bared the south ledges of Mt. Whiteface in October, 1820. (E.g., King, 16; Jackson, 14. Jackson's account is that of Neal McCrillis, who lived in Whiteface Intervale.)

All the preceding references are important in that they record slides which antedate the great storm of August, 1826. From this date people became more slide-conscious, for on August 28 the family and hired men of Samuel Willey, nine people in all, were killed in the famous slide in Crawford Notch. The story of the "Willey Disaster" has been told in print literally hundreds of times. The fullest and most accurate accounts are probably those of Silliman, Wilcox and Baldwin (24), Spaulding (25), Benjamin Willey (27), who was the brother of Samuel, and Lucy Crawford (4). The tragedy has been the subject of poems, a ballad (Parsons, in King, 16), and a short story, "The Ambitious Guest", by Nathaniel Hawthorne.

This storm caused a very destructive flooding of intervale land in the Ammonoosuc, Androscoggin and Saco valleys. (The Ammonoosuc rose some 14 feet in the Fabyan area and the Saco rose 24 feet in seven hours at Conway.) It also occasioned many slides. Wilcox (24) mentions counting some thirty on ascending Mt. Washington via the Ammonoosuc Ravine just after the storm. All descriptions of Crawford Notch agree that there were numbers of slides all along it, covering the turnpike with debris for long stretches. One of the largest slides, reputedly extending over about 1000 acres (probably an exaggerated figure), was on the west side of Mt. Pleasant (Lucy Crawford, 4). At least one slide in the Ammonoosuc Ravine was responsible for carrying away the cabin built by Ethan Allen Crawford at the base of Mt. Washington (Spaulding, 25). The road through Franconia Notch was completely destroyed. Slides occurred on several of the mountains surrounding Gilead, Maine (Willey, 27). According to tradition, the lower ledges of Welch Mountain, in Waterville, were bared by a slide in this storm (Goodrich, 10). A number of accounts mention that the Ammonoosuc and Saco Rivers were dark and heavily burdened with earth, which is a sure indication that landslides had occurred upstream.

The rain during this storm began on August 27 and lasted through to about the middle of the night of the 28th, becoming toward the end a veritable deluge. According to Hubbard (13), the Saco at Bartlett rose 26 feet in one hour on the morning of the 29th, and was filled with earth, like mud. Such a surge must

have resulted from the breaking of a slide dam. Although it is impossible to tell how many slides came down in the area in this storm, the whole number was probably well in excess of forty.

Many slides appear in a plate of the Presidentials in Oakes' *Scenery of the White Mountains* (1848). Oakes believed that most of these occurred in the 1826 storm; however, he mentions the existence of several old ones of uncertain date. "But since the settlement of the country, until the year 1826, those of any extent or importance, if not absolutely unknown, were noticed by few persons, and feared by none."

As the country became better developed, more people noticed the scars of old slides. Thus there is reference to slide scars in the Gulf of Slides (1879), in the Great Gulf (1882), on the col between the Twins (1883), on Scar Ridge (1877), on Mt. Nancy (1886), on Mt. Osceola (1883), on Zealand Ridge (1888), and on Mt. Lowell (1874). It is impossible to set occurrence dates for any of these.

As history becomes more recent we find more references to the dates of occurrence of specific slides. Many of these, including all which are especially well described, are noted in the following paragraphs.

On October 4, 1869, a heavy rainstorm was responsible for two large slides which attracted notice. One of these came down off Carter Dome into Nineteen-Mile Brook (Nowell, 18; Drake, 6); quite likely it was in part responsible for the drowning of J. M. Thompson, proprietor of the Glen House, who was swept away while trying to save his mill downstream on the Peabody River. The other slide was on the south peak of Mt. Tripyramid. This unusually large one has been described at length by Perkins (19), Fay (9), Cutter (5), and Pirsson and Rice (22).

The Mt. Flume slide of June 20, 1883, received attention because it roared down through the Flume, a famous tourist attraction, enlarging it a good deal and sweeping away the huge boulder that had hung suspended between its walls. (The removal of the boulder in this manner provided the most likely explanation of how it had got there in the first place.) Several sources mention this slide, the fullest account being that of Burt (2). During the same storm there was another slide on Mt. Flume, one on Mt. Liberty, and reportedly five separate ones from Osseo Peak down into Clear Brook.

On July 10, 1885, occurred the famous Cherry Mountain slide, which produced the White Mountains' second slide tragedy. This slide largely destroyed the farm of Oscar Stanley. Donald Walker was caught in the moving mass and fatally injured; he died four days later, on the day he was to have been married to one of the Stanley daughters. The base of the slide being near the railroad, a special "slide station" was set up and excursion trains brought

thousands of sightseers to the site. Careful accounts of this slide were given by Hitchcock (12) and Knox (17), and the tragedy received considerable newspaper publicity.³

August 13, 1885, was the occasion of a further slide, beside the one of 1869, on the south peak of Tripyramid, and of a new and very large one on the north peak. The best descriptions are those of Butler (3) and Pirsson and Rice (22).

The great storm of November 3-4, 1927, dumped heavy rain on New England and produced the greatest flood damage this area has ever experienced. It came just over 100 years after the 1826 storm, and again the precipitation occasioned a large number of slides. Among those that can be definitely ascribed to this storm are the large one in Pinkham Notch, at least four in Cascade Ravine (where J. Rayner Edmands' Cascade Camp was swept away) and perhaps as many as eight in Castle Ravine, the Cedar Brook slide, one on Lion Head in Tuckerman Ravine, one in King Ravine, and three on Mt. Hight. Several of those in Cascade and Castle Ravines were however quite small.

In September, 1938, the most destructive single hurricane of record hit New England. Heavy rains, falling on already saturated ground and combined with high winds, produced floods, tremendous blowdowns, and at least thirteen landslides. Among these were the one crossing the Daniel Webster Scout Trail on Mt. Madison, several in Franconia Notch, two on Mt. Passaconaway, and a number in the Ammonoosuc and Burt Ravines on Mt. Washington.

Heavy but more localized rainfall on June 24, 1948, caused two large slides that came down within twenty minutes of each other in Franconia Notch, cutting off road travel. Fortunately the more northerly of these, headed toward the Profile Gift Shop, barely reached the road; had it continued another 200 yards it might well have had tragic consequences, as people were in the gift shop at the time. At least one car was trapped between the two slides.

Hurricane Carol struck northern New England on August 31, 1954, accompanied by the heavy rainfall typical of tropical storms. This was the occasion of the Gale River slide, which damaged the Littleton reservoir. An A.M.C. hutman had a narrow escape from the downstream consequences of this slide.⁴ There were large slides on the south side of Mt. Osceola, and at least three more on the north. And the large King Ravine slide occurred in this storm.

The last definitely dated slide in the area came down from Mt. Starr King on July 22, 1957, during a local but heavy rain.

Altogether it has been possible to date, to the year, 135 slides in the area studied. Of these, 127 have also been dated to the

³ See Montalbaniana, pp. 284-6 in this issue.

⁴ APPALACHIA XXXI (June, 1957), 413-4.

month, and 123 to the day. The list is conservative, as doubtful dates were excluded.

This historical record supplies the following significant information. (1) All slides for which dates to the day are available occurred in connection with heavy rain. Large numbers have occurred during heavy general storms, especially those of the tropical-hurricane type, but there have been a number of occasions on which more localized rains of the summer-thundershower kind have been involved. (2) All slides dated at least to the month have occurred in the period of June to November. There are no records of any occurring in the months of snow-melt and spring rains (March to May). Also, all the November slides, with one exception, are attributable to a single storm (November 3-4, 1927) occurring very early in the month. The frequency by months for the period is as follows: June, 15 slides on 5 different days; July, 2 slides on 2 days; August, 63 slides on 4 days; September, 21 slides on 2 days; October, 5 slides on 3 days; November, 21 slides on 2 days. (Total, 127 slides on 18 different days.) While not too much significance can be attached to these monthly numbers because the period of record is short, it appears that reasonable chances exist for the occurrence of slides in any of the months from June to November, inclusive.

CHARACTERISTICS OF SLIDES

General Description. The White Mountain landslides are almost exclusively of the debris-avalanche type, as defined by Sharpe (23). That is, they are movements of rapid type involving slippage at the head and flowage at lower levels, in which a heterogeneous mass of rock, gravel, soil, humus, living and dead trees and other plants sweeps down, leaving a long, usually narrow, track upon the mountainside. In this movement a large amount of water is involved. The resulting scar is likely to show some bared ledge at or near the top, with patches of rock debris left here and there. Usually, below this sliding section a trough or gully (10-40 feet deep) is excavated in the till mantle, and farther down this merges with the drainage channel of a brook. Violent scouring may continue downstream, sometimes for a distance of two miles. Thus the typical slide shows a relatively wide (10-150 yards) and shallow upper part produced by sliding action, a narrower gully in the till downslope, and still farther down an often highly-scoured stream channel.

In more detail we can characterize the various segments of the typical slide as follows:

(1) *Slide Section.* These highest sections are the areas bared by sliding and are on the steepest portions of the slopes. Most slides show considerable bared ledge here. The extreme tops usually taper to a broad or narrow point upward. This top is most often

in the altitudinal zone where vegetation grows directly on jumbled joint blocks or on ledge. It is frequently at the point where the slope starts to level out above (to the ridge-top, for example).

Sometimes slides have two or (rarely) more heads. Thus the Franconia Notch south slide, the Hancock south slide and the Pinkham Notch slide each have two distinct heads at the top. In the Tripyramid South Peak slide of 1885 three heads were produced adjacent to the apex of the 1869 slide.

(2) *Gully Section*. Where the slope begins to level out, the slide narrows to gully form and cuts into the till which usually overlies bedrock at the lower altitude. The gullies range in depth up to 40 feet, depending in part on the thickness of the till mantle, and often bedrock is exposed. From a broad depression, continuous with the slide section at the top, they gradually become deeper and more V-shaped downward.

(3) *Stream-scour Section*. The V-gully is in turn continuous with the often highly-eroded drainage channel. That the scour may continue downstream as much as two miles is evidenced by intermittent deposit areas of rock debris and boulders and by piles of tree trunks. The channel is severely washed and much broadened, all vegetation bordering the former streambed has been removed, and the trunks of the trees bordering the scour are scarred and barked.

Often the slide section feeds directly, at an oblique angle, into an already established drainage channel. It is then that the most destructive stream scours occur, because the slide dams the drainage channel, building up a head of water behind, whereupon the slide debris gives way and the whole mass rushes down with the bursting of the dam. Field evidence indicates that this occurred in the Osceola and Whiteface north slides, while published descriptions make it clear that the same thing happened in the 1869 South Tripyramid slide, the 1885 North Tripyramid slide, and the 1954 Gale River slide. It is likely that such damming played a part in the destructiveness in Cascade Ravine in 1927 and was probably involved in many other slides.

Fig. 1 presents an idealized slide profile and face view showing the sections just described. Face-view silhouettes of some of the slides visited or observed appear in Fig. 2. These are not to absolute or comparative scale, but give an idea of some of the shapes.

Slopes. The most meaningful slope figure is considered to be that of the upper, slide section. This was measured, on 25 slides, in segments of 50 to 200 yards by the use of an Abney level. From these measurements it appears (1) that the average angle of the whole section involved in sliding lies in the range 25-35 degrees, and (2) that the maximum slope for any 50 consecutive yards of this section lies in the range 32-53 degrees (with only three slides, in the group measured, having a maximum of over 45 degrees).

Altitudes. Of the total number of slides plotted onto topographic maps from aerial photos, 270 were considered to be fresh enough or clear enough to permit accurate location of their tops. The distribution according to altitude of these 270 slide tops is as follows: lying between 2000 and 2900 feet, 45; between 3000 and 3900 feet, 154; between 4000 and 4900 feet, 69; between 5000 and 5900 feet, 1. Thus a majority of the tops lie in the 3000-3900-foot class, and 82% lie above 3000 feet.

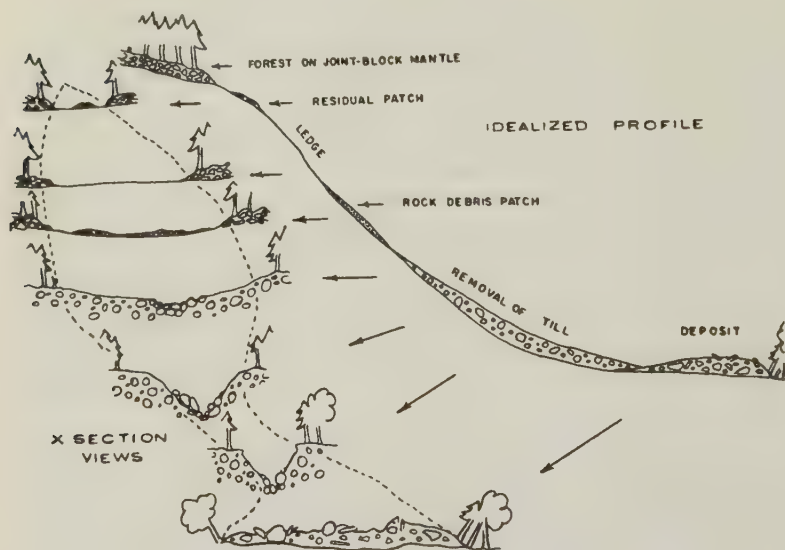


FIGURE 1

Slide Dimensions. The approximate size of the slide sections of 23 slides—some large and some small, and considered to be a fair sample of slides in general—was determined by means of an optical range-finder. The smallest (one in Cascade Ravine) was 87 yards long and 8 yards wide, covering 0.1 acre; the largest (North Tripyramid) was 1100 yards long and 90 yards wide, covering 20.5 acres. It is calculated that the first moved about 750 tons of debris from its slide section, and the second about 107,000 tons.⁵ A majority of the slides in the sample were from 400 to 700 yards long in their slide sections, and from 30 to 60 yards wide, covering 3 to 6 acres and moving 15,000 to 35,000 tons of debris.

⁵ This calculation is made by assuming an average depth of 2 feet for the material moved and using a density figure of 120 lbs./cu. ft., generally accepted as the weight of gravel. The resulting figures do not by any means represent the total debris moved by the slides, since they do not include material from either the gully or the scour sections, which would be difficult to estimate.

FACE VIEWS



FIGURE 2

(1) Whiteface, north slide. (2) Osceola, southwest slide. (3) Cascade Ravine. (4) Castle Ravine. (5) Franconia Notch, south slide. (6) King Ravine. (7) Starr King, west slide. (8) Franconia Notch, north slide.

Compass Exposure. This was recorded for each of the 552 slides appearing on aerial photos and subsequently mapped on quadrangles. The summary of results is as follows: facing northerly (i.e. between N.W. and N.E.), 116 slides; facing easterly, 127; facing southerly, 147; facing westerly, 162. Thus slides occur with approximately equal frequency on slopes assigned to the four points of the compass, and the obvious conclusion is that slope exposure plays no significant part in determining them.

Slide Process. Because slides occur at higher altitudes and during stormy weather there are comparatively few cases in which the slide process itself has been observed by eye-witnesses. However, some eye-witness (and ear-witness) accounts have been recorded.

Slide on Mt. Willey. In June, 1826, prior to the tragic August event which took the lives of the Willey family, a slide was observed by Mr. and Mrs. Willey, Abel Crawford, and some men working on the road. A section of the mountainside moved down, carrying with it trees which remained in standing position "for many rods" (Spaulding, 25). The mass apparently increased in volume and extent; its speed varied.

Flume and Liberty Slides. Guests were in the Flume House at the time of these slides on June 20, 1883. According to Burt (2), there was a low and continued rumbling sound, following a thunderclap. The noise increased in volume, the earth began to tremble, and people living several miles down the valley mistook the event for an earthquake. The noise is said to have continued for nearly three-quarters of an hour, but this surprising statement may not be accurate; it is perhaps explainable by the fact that there were three slides, two on Flume and one on Liberty.

Cherry Mountain Slide. N. M. Davenport, tax collector for the town of Jefferson, reputedly saw the slide start from the top of Owl's Head. He mentioned a tremendous bolt of lightning, which he apparently felt had something to do with its start, and great flashes of light down its course, which he interpreted as giant sparks struck by the rocks hitting together. Oscar Stanley and his two helpers, working on the farmhouse destroyed by the slide, heard the thundering noise, rushed to the door and saw the slide, and ran for safety. Stanley spoke of feeling the earth shake as the slide passed and said, "When I saw the slide it was full thirty feet high, the front of it rolling over and over as it moved".

Newspaper accounts vary in giving the estimated time required for the descent. According to one, this was 2-3 minutes for a distance of over 2 miles, which would give the unlikely speed of 60 m.p.h. or over. The distance traveled was probably somewhat less; calculation from the quadrangle gives a figure of 1.9 miles. The times quoted by other accounts, 4 minutes, or just under 5 minutes, are probably closer to the truth. A conservative figure for the average speed of descent would be in the neighborhood

of 23 m.p.h. (using 1.9 miles in 5 minutes); this is still quite remarkable, considering the gradual slopes (6-11 degrees) of the lower section.

Franconia Notch Slides of 1948. Although a number of people were in the gift shop area when these came down (the northern one preceding the larger southern one by about 20 minutes), no one apparently saw the descent. However, the tremendous noise associated with them was heard.

Mt. Starr King, West Slide. At 7.00 p.m. on the evening of July 22, 1957, after 24 hours of rain, Ralph Hunt of Jefferson heard a roar like that of a jet plane, followed by a long rumble, which he then knew to mean a slide on the mountain behind his house. Hunt estimated the sound as lasting not more than a minute (the length of this slide proved to be about 420 yards).

Historical records associate with slide occurrences a characteristic dark-brown muddying of the swollen rivers downstream. From heavy rains alone, without slides, the streams of the area develop at most a tea-colored, semi-clear appearance.

A surprising aspect of the slide process is the relative ease with which, apparently, the moving mass can be diverted. Perkins (19) remarks on the simple fashion in which the big South Tripyramid slide of 1869 was turned almost through a right angle at the base of the slide-and-gully section, to follow a drainage channel. In the Willey disaster the house itself was spared by the circumstance that a large rock split the moving mass into two streams which flowed around the building and rejoined below. The big Franconia Notch north and south slides were each split, lower down, into two separate channels; then, with further reduction in angle of slope, there was further subdivision. (This braiding at the foot occurs where the slide has not entered a large and well-defined channel.) All these are flow-phenomena and serve to emphasize that debris avalanches, though initiated by sliding, become rapid flowage in the lower reaches.

CAUSATIVE AND CONTRIBUTING FACTORS

The immediate cause of any of the rapid mass-movement phenomena is obviously a sudden failure of internal resistance to the downslope pull of gravity. This failure, in turn, is the result of a complex of contributory factors which fall into such categories as geologic, meteorologic and vegetational.

Geologic Factors. (1) *Slope.* Obviously this is of prime importance in the slide process. Field measurements have indicated that slide sections, where movement begins, average about 32 degrees in slope, with a range of 25 to 35 degrees. It is probably fair to say that, in the area of study, slides are not likely to occur on slopes that do not at any point exceed 25 degrees.

(2) *Bedrock*. The question here is whether the nature of the bedrock—its particular form, tendency to sheet-joint, susceptibility to weathering, or tendency to produce certain land-forms in response to glaciation—is important in determining occurrence.

The distribution of slides in the study area indicates that the nature of the bedrock has no critical influence. Slides occur on all types, and the numbers involved do not appear to be correlated with the extent or the distribution of these types. Combining the types of rock into the two contrasting groups of plutonics (granites, syenites, monzonites and porphyries) and metasedimentaries (schists and gneisses), we find that 328 or about 60% of the mapped slides lie on areas of the first sort and 215 or about 40% on areas of the second sort. But this proportion is similar to that in which the two types of rock exist throughout the area studied.

(3) *Geologic Age*. Landslide prevalence is related, in terms of geologic time, to landscape development and age. Geologists call the changing succession of landforms associated with streams the fluvial cycle: a progression from the steep slopes of early youth to the more gentle gradients of maturity. Although it is likely that the region has undergone several cycles during the long period of erosion since the Paleozoic, present-day White Mountain landscapes are perhaps best considered as being in the stage of early maturity. According to Sharpe (23), debris avalanches dwindle from maximum importance in early youth to no importance in late maturity. Presumably, then, landslides are becoming less frequent as the White Mountains proceed to late maturity. However, the relatively recent Pleistocene glaciation may have set the stage for temporarily increased frequency of slides by steepening some slopes and by depositing loose till in positions of instability.

Chemical decomposition and physical disintegration of bedrock have evidently played some part in the slow production on steep slopes of debris that is susceptible to downslope movement.

(4) *Earthquakes*. Josselyn (15), Dwight (7) and Perley (20) list a surprising number of earthquakes which shook New England (a few with some violence) in colonial times. The last earthquake to attract the attention of inhabitants in the area of study was in December, 1940; the shock was mild, but some damage was done to chimneys, etc., in the Tamworth region. However, none of the dates given for earthquakes coincide with slide dates, so that direct causative action is not involved.

Meteorologic Factors. (1) *Rainfall*. The occurrence of slides is associated with torrential rain. Of the 135 dated slides, 126 are known to have occurred under such circumstances; information is lacking for the remaining 9. Lack of information does not mean, of course, that the slide occurred in the absence of rain. It is significant, further, that none of the large number of written or verbal sources consulted made mention of a single slide refer-

able to spring thaw or snow melt, or—what is even more surprising—to a heavy rain during the snow-melt period (March to May). The best explanation for this is that the ground at the higher altitudes remains frozen below the surface for most of this period, thus maintaining the soil or rock mantle in stable condition.

In just what way the presence of water conduces to the production of slides is something of a problem. K. Terzaghi (26), who has made a special study of the mechanism of landslides, rejects the supposed "lubricating effect" of water, remarking that water in contact with common minerals such as quartz acts as an anti-lubricant rather than a lubricant (dry sand is less stable than moist sand), and that in humid regions there is more than enough water present in the soil at all times for any possible lubricating effect. Terzaghi considers the following effects of water to be the important ones: (1) reduction of cohesion by elimination of surface tension, (2) increase in unit weight of the soil, (3) removal of binder by solution, and (4) rise in piezometric surface, resulting in an increase in pore-water pressure and a decrease in shear resistance of the soil. It is quite likely that the action of water in at least some White Mountain slides is best explained on the basis of Terzaghi's (1), (2) and (4).

(2) *Run-off*. Early general references and more recent stream-gauging data give abundant evidence of the tremendous run-off and flooding involved in most of the slide-producing storms. It may well be that 100 yards downslope from a rocky ridge-top or summit literally streams of water are pouring under and through the broken rock mantle. Such streams, especially if concentrated laterally, could contribute by hydrostatic pressure to slide initiation.

Vegetation Factors. Foresters in particular have speculated as to whether deforestation has increased the frequency of certain kinds of mass movement. Three agents which disturb forest cover in the White Mountains are lumbering, fire and windthrow. The assumption that the heavy lumbering at the turn of the century was partly responsible for the slides has been frequently made. An example is the following description of Zealand Notch, which had been cut over and then repeatedly burned: "In the space of a short walk thirteen of these slides were counted. Occasionally, on a steep declivity and in consequence of heavy rains, a slide will occur in the untouched forest. Much more will it follow deforestation; and the guide, an old resident, declared that every one of these thirteen had come down since the forests were cut." (Anon., 1.)

The evidence in general, however, does not bear out this assumption. The slide sections of most of the slides mapped lie in the 3000-4000 foot altitudinal zone. Usually this is above the reach of lumbering, the spruce being of less than commercially valuable

size or too inaccessible. Where lumbering did extend to these altitudes the stands were clear-cut and hence the boundaries of cutting can be pretty well established. The fact that spruce requires 150 or more years to reach a diameter of about a foot means that a slide now showing trees of this size is taken back to a time when lumbering at the altitudes involved was impossible; thus the area was presumably virgin.

By combining the preceding reasoning with historical records to establish the dates and limits of lumber operations we have a fairly good basis for judging the slides of known date. Of a total of 132 slides dated to the year, 93 occurred in areas that had not been lumbered, and only 12 in lumbered areas; for 28 slides no decision could be made because of lack of sufficient information. In two instances fire was believed to have been involved (but 120 years previously in one of them). While such figures do not indicate that lumbering has no effect, they do show that it has been a relatively insignificant factor. The same is probably true of fire, though locations and dates of fires could not be fixed with as much confidence. For the same reason—the difficulty of determining dates and locations—the possible effects of previous blow-downs are impossible to assess.

On theoretical grounds it has sometimes been maintained that susceptibility to slides is increased by deforestation because of loss of the binding action of tree roots. This *might* have been a factor in such small slides as some of those in Cascade Ravine, logged about fifteen years previously, or in the Zealand Notch slides already alluded to. However, it is likely that by the time root systems have rotted sufficiently to lose binding power, new root systems of the often dense revegetation are developing rapidly.

It might be claimed with more justification that maturing forests would tend to increase slide susceptibility. There is first of all the weight of the forest itself, upon potentially unstable slopes. Secondly, mature forest should involve increase in infiltration capacity, reduced run-off, and consequently increased water retention during storms; this might increase susceptibility by adding more weight (that of the retained water) at the same time that the shear resistance of the soil is reduced by saturation. It is unlikely that such theorizing can be tested.

Trigger Factors. Early observers were curious as to what started the slides. A frequently expressed view was that they were started by sections of ledge becoming displaced at the top; this, for example, was Hitchcock's explanation of the Cherry Mountain slide. Cutter (5) postulated that strong wind upon the trees, with consequent lever action, was responsible for starting the Trip pyramid slide of 1869. An eye-witness thought that a tremendous bolt of lightning had something to do with the start of the Cherry Mountain slide. Burt (2) in a description of the Flume slide of

1883 speaks of the rumbling sound of the slide as following immediately after thunder.

Slope failure can quite obviously occur without a trigger factor. But it is reasonable to assume that in certain instances the failure is triggered by events such as those mentioned above. The trees of the upper slopes grow directly on joint blocks or cliff sections, their roots frequently penetrating crevices or "clasping" fragments. Wind action on such trees, often especially severe in hurricanes, must occasionally displace large fragments or ledge sections which could start a mass moving downslope. Vibrations such as would be caused by thunder could easily initiate movement. And the noise and vibration resulting from one slide could conceivably bring about other slides. Such interaction may well have been a factor in those occurrences which involved several slides in close proximity, in the same storm.

REVEGETATION⁶

Success and speed of revegetation vary with a number of factors associated with the nature of the habitat exposed by the slide. On the bare cliffs and ledges near the tops of many slides the process is very slow; given sufficient slope, the bare rock may remain free almost indefinitely of all vegetation except mosses and lichens. Tree, shrub and herb seedlings may become established in crevices, but due to wind exposure, temperature and soil factors growth is severely stunted and slow. The same factors, along with substrate instability, make for poor growth on the rock-rubble deposits and steeper areas of exposed glacial till, especially at the higher altitudes. On such slide habitats barren areas are frequently encountered on which the red spruce, fir and paper birch show only a foot or two of height growth in thirty or forty years.

In the lower gully sections, where there is likely to be an intermittent or permanent brook, grasses, sedges, rushes and tree species—especially willows—become established.

Residual areas are often left by the slide process. These are small areas of duff and soil held in position by tree roots that are well anchored in the underlying ledge crevices. Such patches tend to occur toward the edges or in the lee of large ledge promontories or boulders that have held against the sliding debris. If reasonably well protected, such areas revegetate rapidly from stump and stem fragments or from seeds remaining in the duff. They show a high proportion of pin cherry seedlings.

Revegetation is also very rapid on the deposit areas, which are heterogeneous mixtures of boulders, gravel, sand and organic matter (mostly macerated trees) deposited as "moraines", ridges

⁶ A paper presenting the results of a detailed study of slide revegetation is in preparation for publication in a scientific journal.

or beds in various parts of the slide. They are often largest at the very bottoms of those slides which do not empty into a permanent stream. On these deposit areas the important pioneer successional tree species of the White Mountain region—paper and yellow birches, trembling and big-toothed aspens, and pin cherry—form dense and rapidly growing thickets. Such stands may average up to a foot a year of height growth.

The natural succession of species with time is a slow process. Spruce and fir develop under the pioneer canopy, and within a period of 150 to 200 years are destined to dominate the scene at the higher altitudes. At the lower altitudes, but requiring even more time, the shade-tolerant hardwoods—sugar maple and beech—will become increasingly important.

Thus slides of age less than 50 years tend to show mostly the pioneer hardwoods. The contrast of young, revegetating slides with the surrounding dark green spruce-fir forest is often strongly marked (note the two older slides, date about 1910, to the right of the Franconia Notch south slide, in the illustration). Older slides show increasingly more spruce and fir, blending more and more with the surrounding forest. Given good conditions for revegetation, as on Cherry Mountain and the scour section of North Tripyramid, the location of slides of about 70-year age is not obvious to casual observation.

Slides of the order of 130 or more years of age, again assuming favorable conditions, are so close to the climax condition that they cannot be located by means of vegetation. (E.g., the White-face south slide of 1820 and the Willey slide of 1826. See photograph of the latter.)

REFERENCES

1. Anonymous. "White Mountain Slaughter." *Forestry and Irrigation* 13 (1907), 449-50.
2. Burt, H. M. *The Franconia Avalanche*. Boston, 1883.
3. Butler, A. A. "The Tripyramid Slides of 1885." APPALACHIA IV (1886), 177-90.
4. Crawford, Lucy. *History of the White Mountains*. Portland, Maine, 1883.
5. Cutter, C. "The Slide on Tripyramid." APPALACHIA III (1884), 47-9.
6. Drake, S. A. *The Heart of the White Mountains*. New York, 1882.
7. Dwight, Timothy. *Travels in New England and New York*. New Haven, 1821-2.
8. Farmer, J. *A Gazetteer of the State of New Hampshire*. Concord, N. H., 1823.
9. Fay, C. E. "A Day on Tripyramid." APPALACHIA I (1876), 14-25.
10. Goodrich, Nathaniel. *The Waterville Valley*. Lunenburg, Vt.: North Country Press, 1952.
11. Hart, W. W. "The Tradition of New River." APPALACHIA XX (1926), 485-92.
12. Hitchcock, C. H. "The Recent Landslide in the White Mountains." *Science* 6 (1885), 84-7.

13. Hubbard, O. P. "Observations Made during an Excursion to the White Mountains in July, 1837." *American Journal of Science* 34, 105-24.
14. Jackson, C. T. *Geology and Mineralogy of the State of New Hampshire*. Concord, N. H., 1884.
15. Josselyn, J. *An Account of Two Voyages to New England*. Edition of 1865. Boston: William Veazie.
16. King, Thomas Starr. *The White Hills*. Boston, 1859.
17. Knox, M. V. B. "Notes on the Slide at Jefferson, N. H." *APPALACHIA* IV (1886), 254-6.
18. Nowell, W. G. "Carter Dome and Vicinity: an Exploration." *APPALACHIA* I (1876), 76-86.
19. Perkins, C. H. "Notice of a Recent Landslide on Mount Passaconaway [actually, on Tripyramid]." *American Journal of Science* 49 (1870), 158-61.
20. Perley, S. *Historic Storms of New England*. Salem, Mass., 1891.
21. Pickering, W. H. "A Three Days' Tramp on the Mount Washington Range." *APPALACHIA* II (1879), 117-21.
22. Pirsson, L. V., and W. N. Rice. "Geology of Tripyramid Mountain." *American Journal of Science*, Fourth Series, 31 (1911), 269-74.
23. Sharpe, C. F. S. *Landslides and Related Phenomena*. New York: Columbia University Press, 1938.
24. Silliman, B., C. Wilcox and T. Baldwin. "Miscellaneous Notices of Mountain Scenery and of Slides and Avalanches in the White and Green Mountains." *American Journal of Science* 15 (1829), 217-32.
25. Spaulding, J. H. *Historical Relics of the White Mountains*. Boston, 1855.
26. Terzaghi, K. "Mechanism of Landslides." *Engineering Geology* volume, Geological Society of America, 1950.
27. Willey, Benjamin. *History of the White Mountains*. Revised edition by F. Thompson. Boston, 1869.

SHIKAR IN BALTISTAN

by MARY OGDEN ABBOTT

ON THE 18TH OF FEBRUARY, 1923, MY MOTHER AND I debarked from the *Gregory Apkar* in Calcutta. We were immediately pounced upon by a thoroughly unattractive "bearer" called Abdul. With this Abdul and a Männlicher .375 carbine which I acquired in Calcutta we subsequently transferred ourselves to Kashmir.

In my abysmal ignorance I had never heard of Kashmir until my mother started to talk about it as we approached India. However, during our sojourn in the Rockies I had developed a great enthusiasm for hunting, though not necessarily for killing, game. So I acquired a gun. It proved a most useful passport to a land and a life beyond the passes and into an era that had vanished from the Western Hemisphere centuries ago. For me the magic lamp had nothing on that gun.

After seeing a certain amount of India we left Rawalpindi on the 5th of April and proceeded in a hired motor vehicle toward the hills.

April is hot in the plains. The haze of dust and smoke rests upon the brown earth in a heavy miasmal layer. The thin, tottering cattle look their most depressed. Presumably the houses of gray earth, with their flat roofs and dirt floors, offer some refuge to the emaciated, handsome people when they are not languidly sweeping the dust with bundles of twigs. The flies swarm with tenacious impartiality on offal, animals, food and the children's faces. Overhead the great *cheels* soar and balance, watching intently for anything on which the Grim Reaper has laid his hand.

But presently we reached the parched foothills and started to climb. To climb above the haze, to find ourselves under evergreen trees, and at last to raise the snow peaks of the Himalaya! That first glimpse of the snow left in our hearts an image never to be forgotten. I know now what the ascent to heaven means.

At night we stopped at a "rest house" in the hills, beside the Jhelum River. It was there that we met an Officer Sahib bound for Kashmir on a brief *shikar* (hunt). He was fascinated by our American manners, my ambition to hunt, and our ignorance of everything. We had heard in the plains of an English *bundobust* (outfitter), our only meager bit of information. The Sahib instructed us at once that this was all wrong. He would tell his Kashmiri *bundobust*, Ramzana, about us, and Ramzana would

In the early 1920's MARY ABBOTT and her mother spent nearly seven years in a leisurely trip around the world. An article, "Improbable Interlude", describing the first part of this trip—several months with a pack-train in the American Rockies—was published in APPALACHIA for June, 1957 (XXXI, 357-71).

fix us up. We must not engage English-speaking servants, they were no good. (We had not a word of Hindustani, kitchen or otherwise; no phrase-book existed; the dictionary gave no clue to phonetic pronunciation, and the anglicization of Urdu was entirely beyond us. No matter.) The Sahib left early and we never saw him again, but we had rubbed the lamp.

Baramula, the first stop in the Vale of Kashmir, is a depressing place, which was covered at the time with snow and slush. Only the women were beautiful, with great dark eyes and regular features. Straight and tall, in their red *pherans*, white headcloths and silver ornaments, they walk with a regal bearing and stately rhythm. Indeed, the women of Baramula are famous for their beauty. It used to be the custom, I was told, to outfit an unattached sahib on leave in Kashmir with a houseboat furnished complete with servants and one of these houris.

Presently the Vale of Kashmir opened out before us. We had dropped down out of the slush, the grass was green and the almond trees in bloom. Around the flat periphery of this lovely land, in which the people lived in poverty and filth, stood the mountains, white with snow above their heavy forests of evergreen. It was easy to understand why, when the Shah Jehan was asked on his deathbed in the plains if there was anything he desired, he had replied, "Only Kashmir".

Upon our arrival in Srinagar, which was then the end of the road for all wheeled traffic, we threw ourselves upon the mercy of Ramzana. This character, a Moslem, sat cross-legged on the floor surrounded with papier-mâché whatnots and looking like a large old mouse. He had quite fluent English and assured us that the Sahib had spoken and that he, Ramzana, could supply everything. But it was too soon to cross the Zoji La, the pass out of the Vale into Baltistan; the snow was deep and only the *dak* (mail) coolies and the young sahibs went over so early. Besides, we must book a *nala* (valley) with Major Wigram Sahib.

In those days the British gave permits to travel and shoot beyond the passes. They also licensed the *shikaris*. (The Kashmiri were reputed to be timid and unreliable, but I believe the *shikari* would risk or lose his life to preserve his sahib.) It was all extremely well run. Only two guns were permitted in each *nala* each season, and the bag of game was limited in number and age. (I was puzzled to know how the age of an animal seen upon a distant mountainside was to be determined, but it was really quite simple: the length and curve of the horns were the clues.) There were ibex, *shapu*, and *markhor* to be had. We were late in applying and I was assigned the second period in a far-distant *nala* 100 miles down the Indus from Skardu, the capital of Baltistan, and for the first period a very small and inferior *nala* for a

possible ibex or *shapu*. In the meanwhile we could look for *bhalu* (bear) in the hills around the Vale.

Ramzana supplied us with equipment and we spent a week in the pouring rain camped in the *Munshi-Bagh*, a sort of park in the town. Abdul became more and more impossible, and although he was our only interpreter we fired him as soon as we got our *shikar* servants. I have seldom been more glad to see the last of anyone. Abdul clung to the illusion that, we being women, he could push us around. It was a species of self-deception indulged in by all our servants—up to a certain point. They seemed to regard us as a cross between a newlaid egg and God Almighty.

Our new servants were the following. First, Jabarra *shikari*, tall, handsome and Biblical, with a fine big nose; bearded like a prophet and slow of speech; no longer young. Second, Willia, *chota shikari*, younger, darker and more volatile; not so good-looking. Third, An Wera, second *chota shikari*, a soft, rather repulsive young man, son of Jabarra. He walked behind my mother, carrying her spare parts. Fourth, the cook, an old pirate with a white beard dyed henna. It was wiser not to supervise the kitchen, but I will say for the cook that he could produce a hot meal over twigs or dung in no time flat after he hit camp. Finally, a camp coolie to do chores and be put upon, and a *dak* coolie, a small dark man, who subsequently walked the 100 miles from Baralungma Nala to Skardu and back in seven days, when we ran out of money.

First we went down the Jhelum River, under the seven bridges, and debarked near the Shalimar Gardens of Shah Jehan. Thence we proceeded to a hillside where there were said to be *bhalu*. The spot selected for our hunt was singularly unattractive and was presently made more so by the incursion of a great army of what looked like gypsy caterpillars, who promptly stripped all the leaves off the tree under which our tent was pitched. Days passed, but we could not pry the outfit loose—no common language, so what they did not wish to understand they did not understand. However, eventually the Aladdin Sahib's very debonair *shikari* appeared in camp; the Sahib had thoughtfully instructed him to look us up, as he *did* speak English. Thereupon all was explained and we pulled out of there to another less unattractive camp where there were equally no *bhalu*.

Here our tent was pitched under huge twin chenar trees in which dwelt a pair of enchanting flycatchers with long white tails. The chenar is a magnificent species of plane tree which, I believe, grows only in Kashmir. They are the handsomest shade trees in the world, towering into the air with foliage so dense that no fleck of sun appears beneath. Their massive trunks, which are frequently hollow, will shelter two ponies. The people of Kashmir almost worship these trees, as they do the wildflowers which grow

in profusion throughout the Vale and appear in all their art, rendered with an extraordinary grace and sense of design and color. One day an ill-favored, rather dirty local *shikari* in a ragged homespun smock presented me with a little bunch of wildflowers exquisitely selected and arranged. They were bound with a bit of raveling from his smock. I see him plainly now, with his little round hat, his deprecating smile, and the enchanting bouquet extended in his dirty hand. I have always hoped that the barrier of language did not prevent his realizing how touched I was.

This camp under the chenars was near the Wular Lake, where it was to be observed that all the ponies grazed in the lake, with their backs awash, while all the water buffalo grazed high up on the hillside.

At last we wearied of the *nalas* without bear, or indeed much attraction of any sort, and decided to proceed toward the Zoji La. The marches up the Sind valley were full of charm, along a beautiful trail through forests fresh with spring and always beside or below us the Sind River in spate.

Part way up the valley we stopped in another *nala*, a beautiful little glade among tall trees. Word had come that the pass was not yet safe, owing to snowslides and other possible obstructions. So for ten days we camped in this paradise, while it really rained. At least we had the solace of an adequate campfire. My mother and I slept outside the tent. We would dump the water off our bed tarps, worm into our sleeping-bags, and try to arrange the tarps again so that we could breathe without drowning.

Finally, on the 1st of June, the pass was declared officially open and we started in earnest. The next stop was a rest house near the pass, high up and gloomy, and then the pass itself, the trail still on the winter snow—how deep? Many feet, in the places where it had fallen in; and many snow bridges there were, too, where the servants feared that the laden ponies might break through. Transport was to be hired at designated villages, at fixed prices plus *baksheesh*, during the season when the pass was officially open. This transport consisted of coolies and tottery little ponies, each with an attendant made necessary by the insecure way the loads were fastened. The ponies we rode were the most miserable of all, skinny little beasts that appeared to be only hide and bones with tremendous lungs inside. It seemed a sin to mount them, but I never saw one fall. Often I thought of Bob Vaughn and our smart pack-train of well-found mules, all “*rarin’ to go*”, as he would say.¹

As we advanced up the Sind valley we had rolled the seasons back from early summer to winter on the pass itself. Now we descended, unrolling the seasons again, into a land of austere desolation, a tawny desert set up on end.

¹ See APPALACHIA XXXI (June 1957), 359ff.

We began to encounter caravans from Central Asia, men in long greasy gowns of sheepskin worn hide-side out, the sleeves extending to their knees to make muffs against the cold. They had Tartar faces and the long free gait of men from the wilderness. Some brought their women, who sat patiently, huddled and veiled, on top of a load under which staggered a little pony. At night they camped around a fire of dried dung, surrounded by their bales of goods and patient stock.

Occasionally, also, we encountered a young Officer Sahib, hurrying back from his *nala* in double marches of twenty to thirty miles a day, the skin peeled from his nose by exposure to the high thin air. These lads were very shy and would not stop on the trail to pass the time of day. When we shared a *dak* bungalow with one of them it was necessary practically to hog-tie him in order to make him speak.

Our route followed the Dras River until it joined the Indus. The trail rose and fell along the cliffs and passed through occasional villages. The fields, some of them no larger than a pocket handkerchief, were terraced to permit irrigation. They were green with the newly sprouted grain and among them grew poplar, walnut and mulberry trees. The shade was like a benediction in that land of relentless sun, steep mountains, and great sandslides that swept down for thousands of feet in beautiful unbroken lines.

Late one afternoon, at the end of a tiring march along the river, we made camp on the bank of a stream the waters of which were used to irrigate a village. My mother and I proposed to bathe in this stream, and did so, ignoring as best we could the cloud of female witnesses who watched attentively from behind every leaf. The men, with extraordinary tact, withdrew as soon as we began to remove our clothes. I remember one man who left his plow and disappeared when he saw me descend the steep bank of the stream, presumably to bathe.

After our bath we were sitting, somewhat disheveled, before our tent drinking tea. Our washing hung from the guyrope in front of us. Suddenly Willia approached to announce the Rajah and his *Wazir*, and immediately upon his heels followed two slender and handsome young men, dressed in white with freshly wound *puggrees* (headcloths) and with flowers behind their ears. The *Wazir* carried a bow and some arrows in his hands—presumably to emphasize the casual nature of the encounter. We exchanged salaams and then, as usual, communication bogged down. We offered cigarettes, which were accepted with enthusiasm, although they never touch them to their lips; with such enthusiasm, indeed, that we were compelled to be niggardly with our small supply of the "Pearls of Egypt". Then, as the visit did not terminate itself, we felt increasingly deficient in hospitality. Suddenly I thought of a tin of syrupy fruit-rind produced in India.



Etching by Mary Ogo

FOOT OF THE ZOJI LA



BALTİ VILLAGE

Etching by Mary Ogden Abb

We had it brought and opened, and offered it to the Rajah and his attendant. They fairly drooled, but at this point the officious Willia intervened: it was not made by a Moslem, it was unclean, unfit for the Rajah! We could have wrung his neck. The faces of our guests betrayed their disappointment, we pressed more cigarettes upon them, and the visit ended as an errant breeze lifted our long-handled underwear and draped it around the shoulders of the Rajah as he salaamed before departing.

Jabarra assured me that there was no game in our *nala* (don't ask me how, since we still had no common language), so we proceeded to Thulle Nala, one of the few "open" *nalas*. To reach our destination it was necessary to cross the Indus, which was accomplished upon rafts of inflated goatskins lashed to slender poles. These are propelled diagonally across the river under the action of the current, which is considerable. To the uninitiated there always seems a possibility of missing the landing and being carried down the swift stream, while the skins, which all leak, lose their buoyancy. One starts off about seven inches out of water and ends sitting in it, to the great gratification of the natives, who stand on the raft equipped with long poles. With these, having shoved off from shore, they paddle violently and ineffectively, shouting a chant, while all the onlookers shout with equal delight. My mother clearly felt insecure, which by no means decreased the pleasure of the piratical-looking spectators.

We climbed to our campsite past a little village where the banks dividing the irrigated fields bloomed with a profusion of wildflowers, all of which my mother recognized as denizens of her garden at home. The view from this camp was magnificent. Behind us rose the snow mountains, adorned with glaciers. In front the ground dropped to the river, far below, beyond which stood range upon range of rough and tawny crags. To the left, at the head of a side *nala*, rose a peak shaped like the Matterhorn. It was from this camp that I first saw the false dawn upon the high snow peaks, a gradual illumination against the still bright stars as though the snow itself emitted light, the cold pure light of Reason. And then the dawn wind blew, as it might be on the morning of creation.

I hunted the ibex high and low in this *nala* and got one with the only really good shot I ever made. Through the glasses I watched them sleep and graze on the high ledges that seemed unsuitable for anything but limpets. And for hours at noon, when we waited for the game to move, I watched the Himalayan choughs. Very distinguished performers, those birds, with their black coats and red legs, masters of aerodynamics. A flock would play in the air currents generated by the hot cliff faces, somersaulting high up and then zooming down with folded wings to turn and rise again without effort, propelled by that unseen force.

Above, against the sky, pairs of great *cheels* sailed, scarcely moving their pinions except to balance. Each pair patrolled its chosen peak, watching always for dead or crippled animals. If one pair dropped, others would follow, and still others from far beyond. If I lay still in the sun, the pair which owned that peak would swoop down to look more closely.

As July approached we decided to pull out down the Indus to Baralungma Nala. We were told that the best way lay over a high snowfield to another *nala* which drained into the Shyok, which in turn drained into the Indus near Skardu. Accordingly, coolies were engaged and we camped at the foot of the snow. That seemed very wise, and I envisaged an early start before the crust had melted. However, no amount of cussing and general row would move the transport out of their huddled sleep until the sun was up. The result was inevitable: the laden coolies broke through the snow at almost every step and finally arrived on the other side long after dark in a state of abject exhaustion.

One curious feature of marching down the Indus from Skardu is that the route seems to be uphill all the way. All the worst upgrades are on the way down. The river was white with the silt of melting glaciers; it was intensely hot, the rocks stored the heat of the day, and at night the canyon resembled an oven. We would start before dawn and march until noon, then swelter in some little paradise under what shade we could devise until the sun had set.

It was at the end of one of these grueling marches that the Major General Sahib sent us over a copy of Blackwood and his salaams, and then came to call while we drank cup after cup of hot tea. The Major General Sahib was of the old school and straight out of Kipling. Tall, spare and distinguished, with perfect manners, he was the type of Englishman who appeared to have dressed for dinner even if he were still in shorts and camping in a little intervale between the rocks, 200 miles from the nearest wheel-track.

At the last village where we could hire coolies we obtained a bunch who were really magnificent. They shouldered their 40-pound loads and romped off, leaving my mother and me to follow as best we could. However, they waited for us at a spot where the Indus trail vanished into a sandslide which originated a thousand feet or more above and broke off at a ledge with the river many hundred feet below. We were conducted over this obstruction with a certain solicitude. It gave one an eerie feeling to have each foot sink in up to the ankle and then, the moment it was removed, to have its impression effaced by the sibilant sand. The laden coolies sank deeper, while we held our breath, but they too all made it. The next obstruction was a *nala* in spate and there

we camped, waiting for the high snow above to freeze. In the morning the water was only ankle deep.

Two days later we raised the snows at the head of Baralungma Nala, a veritable paradise where the *markhor* ran, grass and flowers grew, strange twisted cedars stood, and two glaciers broke off just above our camp. Little water ouzels dived into the torrent, to emerge again far below. There we stayed and hunted for a month and I brought home one of the largest heads of *markhor* shot for a long time.

At last we headed out, this time over a high shoulder of mountain where our first camp overlooked endless snow ridges. We froze in our beds that night and the coolies built themselves a huge fire and sat up and sang. Seven miles at a continuous steep downgrade brought us to the Indus and we turned our faces back up toward Skardu. The return march was a delight. The river, instead of a torrent of milky silt, had become a stream of beautiful, pale-green polished jade. The villagers met us with huge bunches of grapes, and although the dogs bayed the moon and the irrigation water was frequently turned into our camp at night, so that we awoke in a shallow lake, it was a delightful 100 miles.

At one village, on the way down, we had been asked to treat, among persons with other ailments, a young woman with disheveled hair, a dirty face, eyes closed and oozing, and legs covered with suppurating sores; also, an old, half-paralyzed man carried pig-a-back. No one had warned us that every village would expect us to cure the lame, the halt and the blind, and we had brought, simply for our own use, one bottle of 5-Star Haig and Haig, a bottle of small yellow Chinasol tablets to be dissolved as a disinfectant, and some boric acid powder, as well as a limited amount of laundry soap. It was difficult to imagine that anything less than a miracle would suffice in this instance and neither my mother nor I felt that we were really vehicles for such power. We managed to make it plain that the old man was beyond our ability to help. But everyone was peculiarly insistent about the young woman, addressing us in a perfectly incomprehensible language through the *chota shikari* Willia, as interpreter, who passed it on in an equally incomprehensible language. They laid great salvers of beautifully arranged nuts, raisins and flowers at our feet, refused *baksheesh*, and stood before us pleading.

At last I said to my mother, "We will mix this woman up a solution of Chinasol and show her how to put it in her eyes. It has an awful bite. And we will give her some soap to wash with, in very hot water. (At least we knew the Hindi for that.) And when we return over this trail, which is the only one, they will doubtless cut our throats."

So it was done. The people left us filled with faith and we got

ready for the night in very much less faith. This had been our worst experience.

We approached this village, upon our return, with considerable misgivings. "Between the desert and the sown" we were met by a delegation bearing big copper dishes of fruit, nuts and raisins. The leading lady, a charming young creature with bright eyes and cheeks, a smooth olive skin and long plaits of hair, seemed especially enthusiastic and full of incomprehensible chatter. Willia finally made us understand that she was our erstwhile patient! My mother and I felt downright blasphemous, as though we had, without virtue or authority, effected a cure by the laying on of hands.

On our return to Skardu, September 15, we found that we were a day too late to avail ourselves of the fixed rates to travel back to Kashmir across the Deosai Plateau. We had to make our own *bundobust*. The servants were reluctant to risk it, as they said snow might fall and close the pass. However, my mother had a positive phobia against back-tracking. With some delay and haggling, Jabarra *shikari* got us transport and we started the long climb. Late that afternoon we topped out on the high plateau. There was good water, but no fuel except what we carried and no feed to speak of. The servants *hullaied* (cut the throat of) the poor thin sheep that had climbed with us and we dined on that. All the next day we followed the dim trail across that high bleak plain. The way was marked by low cairns and by the bones and carcasses of dead beasts of burden, around the more recent of which the heavy vultures hopped and fed in their obscene manner, resentfully taking flight if we approached too near. The sky was low and gray, it turned bitterly cold, and began to snow. That night there was no fuel except what dried horse-dung we could gather. My mother and I slept in the tent and I was aroused, about midnight, by one of the poor thin ponies who backed in between us in order to share our shelter.

Next morning the world presented a featureless white expanse, with no sun to guide us. Provisions were low and the men were frankly scared. So was my mother. We packed up and started off. It was apparent that the local transport was far from confident, but we passed occasionally a hump which was saluted as a cairn. There is only one trail across the Deosai and if you miss that you are out of luck. The elevation varies between 11,150 and 13,970 feet and winter begins officially on September 15. It looked as though we stood some chance of being food for vultures ourselves.

We slogged on through the snow and I remember that my mother presented a very striking figure. She was dressed in a coat, riding breeches and spiral puttees, and over her coat she had a sheepskin waistcoat tied with a number of white tapes. Around her neck was a heavy muffler, she wore dark glasses and, on top



LEAVING
BARALUNGMA
NALA

Working for
Mary Morris Jones



of her gray hair, a 10-gallon Stetson hat with a Montana peak. She carried a long stick shod with metal.

There was no means of discussing the situation but presumably everyone was equally anxious to find the way off. Now and then we stopped while the local men considered their direction. The situation was not reassuring, but it did not seem to me worthwhile to get into a lather. Either we got off or we didn't. Suddenly the ground became more broken and below us there appeared a long line of black dots—a pack-train ascending the pass. The men had kept the trail and we were out!

My mother, with renewed courage, hit the trail down to embrace our deliverers. The first pony which encountered this apparition wheeled, lost his footing, and rolled over the cliff, strewing 5-gallon cans, ropes, bits of equipment and what-have-you around as he went. The *gora wallas* (pony boys) restrained the other animals before they could follow suit and seemed in no way put out, but roared with laughter. They went after the pony, collected the odds and ends, and tied them together again with bits of string. We distributed cigarettes and all was happiness.

We paid off our coolies at a rest house below the snow on the Gilgit road. They were most anxious to return before more snow fell, but when paid off decided to spend the night; also, they demanded something for their eyes, sore from the snow and the dung smoke. I mixed up my solution of Chinasol, lined up the coolies, poured some solution into a teaspoon, and put it in my own eyes first. It did indeed have considerable bite! Then I went down the line and the effect was almost like a strike in bowling. They were entirely satisfied, knew they had something, shouldered their ropes, and departed.

To us the Gilgit trail seemed like a four-lane highway and we knew our adventures were over. I don't think my mother felt as sad as I did.

When we returned to the Vale of Kashmir the weather was mild and beautiful, like Indian summer. We camped in a *nala* where I looked for bear and *barasingha*. I saw some small bear one day, in a tree feeding on red berries. When I approached it seemed literally to rain bear. I couldn't have shot one even if I had wanted to, they were so funny.

Presently I moved camp up higher, leaving my mother in the Wood Sahib's house. My camp was in a beautiful forest glen with a stream of delicious brown water. It turned intensely cold and still at night, and I awoke with the sense of a presence at my shoulder, the Angel of Death. He did not come for me, but I know that he was there.

I saw no *barasingha*, but one afternoon a great band of monkeys—big and little, male and female—crossed the hillside. They swung from the branches, dropped to the ground to cross an open

space, climbed again, and continued out of sight, jumping and chattering.

About the beginning of the new year, 1924, we went down to the plains. In Delhi I obtained permission to look for a tiger in Central India. The jungle there reminded me of the scrubby Fairhaven woods (in Concord, Mass.) in winter, except that sometimes, when you had walked along a dusty track, you found later that a tiger had walked there after you, putting his feet where yours had been. As part of our outfit we had a tame elephant, who immediately ate up all the bamboo under which we pitched our tent.

I did not get a tiger, but I did get malaria, and the night we rode out on our elephant seemed endless. The Milky Way swung overhead as the elephant walked the dikes between the irrigated fields. We sat on a pad on her back, and every time she put a fore-foot down it jarred my spine to the base of my skull, while the fever burned and my teeth chattered. Malaria has some class as an ailment. We didn't know enough then to take thirty grains of quinine the moment it hit. I don't relax readily, but I will say that the concrete floor of the rest house, when we reached it, was flat and still and cool and delicious, and I flopped down upon it like a discarded rag doll while the fever rippled over my body like the flame of spilled alcohol.

FAR AND FAST

by KLAUS GOETZE

IN SETTING DOWN THE EXPLOITS OF MY SON CHRISTOPHER in getting over some trails faster than other human beings I am torn between principle and paternal pride. Personally, I am afraid that something valuable will get lost if the only things I think of on the trail are my breath, my knees, my thirst, my staying power. But then, I am not a sportsman.

It seems that Christopher is. He wants to win, he can pull himself together, and he can evaluate the condition of his body coolly and dispassionately. He is just 19 now, a Harvard sophomore, majoring in physics. About four years ago a friendly rivalry arose in Randolph to test who could get to Crag Camp the fastest. The trip was well known and tedious in parts, so why not? The A.M.C. hut boys do it all the time. So he did it too, and confirmed for himself what he had already suspected, that he could walk up a steep slope at full throttle without ill effects on his wind or his knees.

During the winter of 1955-6 Christopher ran on the cross-country team of Phillips Exeter Academy. He did moderately well, and in particular the coach, Robert Bruce, trained him to hold his speed down in order to last out. In the following summer an accident befell him. On trail work for the Randolph Mountain Club, he hit his knee with an axe very badly. His friend and co-worker Dan Clemson bandaged him with a sweater, but he had to walk out about 2 miles on the new Link trail to the car. Then, after three weeks in bed, the appetite for cross-country running was lost. However, the leg healed beautifully in Dr. Appleton's hands. During the last two summers Chris was again employed on the trails.

This June he did something rather curious. He tinkered with his bicycle and equipped it with six gears. Then, mumbling something about a bicycle trip, he suddenly left Cambridge, Mass., at 3.30 in the morning, pedaled all day and reached Randolph, N. H., 170 miles away, by 8.00 that evening. This stunt was undertaken, most likely, because the long distances, the sustained holding out, give him a curious satisfaction.

KLAUS GOETZE, a member of the Club, is president of the Randolph Mountain Club—an office which he has held twice before. He has for many years been in charge of the R.M.C. trails. By profession he is a concert pianist, as well as a piano teacher and lecturer on subjects musical at Wellesley College, Phillips Exeter Academy, Milton Academy and other places. He has climbed for years in the White Mountains, especially in the Randolph district where lies his summer house; and in his travels from Canada to Mexico, from Norway to Portugal, he has sought out mountain regions. He reports that his only personal experience with fast walks was years ago, when he "climbed Pine Mountain in 19 minutes, in order to get at the blueberries".

On August 3 the R.M.C. trail crew disbanded, leaving him free for record trips with their preparations. The first test was made on August 5. I saw him off at the Ravine House at 8.08 a.m. on a perfect day. "I guess I'll go over the Range" was his rather vague indication of intent. So I told him that I was going to the Willey Range with an R.M.C. trip and would leave the car at the Crawford House. In the evening we could go home together.

But when I arrived at the Crawford House, at 6 p.m., he wasn't there, but stuck to the windshield were a few hardly legible words, written with the can opener of a kipper-snacks can, "Here at 12.43. On to Franconia. Will phone 8 p.m." So he had gone from Randolph via the Air Line, Gulfside and Westside Trails, and Crawford Path to Crawford Notch in the rather remarkable time of 4 hours, 35 minutes. The distance is about $17\frac{1}{2}$ miles, making the speed a little better than 3.8 m.p.h. In the end, however, he had to pay for this record. After waiting for him in Franconia Notch until darkness, we eventually picked him up at the Gale River Campground, where he had been standing for an hour, hoping for a ride to a telephone—dirty, dispirited, with torn shorts. I wouldn't have given him a ride if I had not recognized him as my son. "I crumped out somewhere between Zealand and Galehead and decided to hang it up and walk out", was his comment. By "crumping out" he tried to describe the sudden onslaught of weariness, lack of breath and caving in of knees which indicate to him that he won't last.

Two days later he was at it again. To remedy the "crumping out" weakness he embarked on the horse cure of climbing Mt. Adams from Randolph (Coldbrook Lodge) four times in a single day. He figured that this would give him a rise of 4 times 4518 feet, or better than 18,000 feet, more than the total rise of the "Hut System trip" (Lonesome Lake to Carter Notch). He started at 5.57 in the morning and finished at 7.53 at night. Two things stood out that day. One of them was the fact that he was given a steak, still hot in the pan, at about 1 o'clock, before his third run, and he claims that it gave him renewed energy in the most miraculous way. The other was the timing of the four runs: 1:56, 1:49, 1:43 and 1:29 from Randolph to the summit. The last run cannot really count, since he used a rather clever trick. The summit had been in clouds from 10 o'clock in the morning and, while this did not bother much in the daytime, it would have been very bothersome at night. So, on the third run, he added an extra trip from Crag Camp to the summit and back, going at that time Randolph-summit-Crag-summit-Randolph. Then his fourth and last time took him only to Crag Camp. The time of 1:29 adds up the two pieces.

At this point various friends began to become interested, among them Bradford Swan of Providence. Brad established

some time ago a run known as "Swan's Traverse", a trip which compresses into a little less than 13 miles of travel a rise of 8456 feet. It was devised as a joke: the most horribly difficult way from the Ravine House to Pinkham Notch. The route is as follows: from Ravine House via the Air Line, Short Line and King Ravine Path to Mt. Adams summit; Adams Slide Trail to Great Gulf Shelter, then Great Gulf and Gulfside Trails to Mt. Washington summit; down via Lion Head to the Tuckerman Ravine Trail, up via the Boott Spur Link to the Boott Spur Trail, and down this to Pinkham Notch Camp. The Madison hutmaster, Jim O'Kane, held the record with 5:22. Chris did this run twice, on August 10 and again on August 20, and the times are rather revealing. They are printed here side by side (Time I, August 10, start at 9.18 a.m.; Time II, August 20, start 12 noon):

PLACE	ELEV. (Feet)	DIST. (Miles)	TIME I (Hours)	RATE I (M.p.h.)	TIME II (Hours)	RATE II (M.p.h.)
Ravine House	1280	0.00	0:00		0:00	
Mossy Fall	2950	2.83	0:43	3.61	0:43	3.95
Gateway	5080	3.92	1:21	1.92	1:13	2.18
Adams Smt.	5798	4.48	1:33	2.80	1:26	2.59
Great Gulf Sh.	3250	5.95	2:22	1.80	2:02	2.45
Spaulding L.	4250	7.58	2:53	3.16	2:38	2.72
Gulfside Tr.	5950	8.43	3:25	1.60	3:05	1.89
Wash't'n Smt.	6288	9.05	3:34	4.13	3:15	3.72
Tuck. Rav. Tr.	3810	10.05	4:10	1.67	3:46	1.94
Boott Spur Tr.	4665	10.65	4:26	2.25	4:03	2.12
Pinkham Notch	2000	12.79	4:59	3.89	4:32	4.43
			Average	2.56	Average	2.82

As the figures show, he got almost all his gains on the downhill runs. Also, the consistently parallel performance of the second trip over most of the course is striking. He gained 3 minutes here, 4 minutes there, and what he gained, he did not lose. The time of 1:26 to Mt. Adams via King Ravine is worthy of note. On the first run he lost some time getting off the Adams Slide Trail; on the second run, a steak furnished by Moby and Punky Mudge, and cooked with split-second timing at Great Gulf Shelter, took 8 minutes' worth of eating. On this trip he tried three pairs of shoes: at first a modest, trusty pair of walking shoes bought for \$10 at the Army Surplus store in Berlin, N. H.; then sneakers for the ascent of Washington, where two more friends, Linda Cross and Jackie Arnold, met him with his new pair of Peter Limmer boots, with which to "stomp down" Lion Head.

All the foregoing had been preparation, the idea all the while having been to try a run over all the A.M.C. huts sometime during the summer. What made his resolve jell was, as it so often is, a chance remark. Miriam Underhill presented Christopher to Joe Dodge at Pinkham Notch with the words, "Here, Joe, is the

man who is going to break the Hut System record!" Joe looked over the lad, all 5 feet 8 inches and 135 pounds of him, and in his voice was a good touch of skepticism as he replied, "Lots of people have tried that. It's harder than you think."

The Hut System run was made on August 14. It was designed to be no more than a test run from Pinkham Notch to Franconia Notch, and turned into the Real Thing half by accident. Before I describe it, I must digress a little.

Bert Malcolm has been for many years a close friend of all of us. We have been on many walks together, and it would never have occurred to any companion of his to think that here was the man who had, at fifty-one years of age, set up a record which has never been broken in twenty-two years, although attempts to break it have been made by several men ever so much younger. Bert went over the course twice, from Carter Notch Hut to Lonesome Lake. On the first occasion he made it in 22:03, using the shortest route except for an extra ascent to Mt. Washington summit (which Christopher did not include on his run). On his second attempt Bert added the summits of Wildcat plus Kittens, Madison, Adams, Jefferson, Clay, Washington and all the Southern Peaks (3 more miles and 3,000 more feet) and outdid the first record by 20 minutes, making it in 21:43 this time. Last year Bert and Christopher had some talks together and Bert encouraged the boy and promised all possible help and information because, as Bert said, "it is about time that my record got broken".

Originally, the 13th was picked, and our alarm clocks were set for 2 a.m., but black looked the summits and everybody went to bed again. The following night was cool, starry, moonless, and Chris had gone to bed at 7 p.m. the evening before. When we awoke, again at 2, he announced, "Change in strategy; let's go to Franconia and take it eastward". The inevitable steak was cooked, and my wife and I drove him through deserted roads to Lafayette Clearing. On the way I said, "Christopher, you might as well go up to Lonesome Lake, touch it, and come back, in case this should be Your Day". So he did. We wandered at first in the darkness, between sleeping campers, trying to find the trail, found an information poster with map, found the bridge at 3.40 and, armed with two flashlights in case one of them should fail, off he went. On the zigzag trail his flashing light was visible in the most confusing manner, while my wife and I waited. At 4.31 he was back again. He had found the cabin locked and everyone asleep, and had just pinned his signed note to the door: "Here at 4.12 a.m., Christopher Goetze". I accompanied him across the road, giving him golden words of good advice, none of which he heard, I am sure, and saw him vanish in the blackness of the Old Bridle Path.

It was now time to go home to Randolph and establish contact with young Bob Underhill, who had the most important single

job of the trip to do: to intercept the running lad at Edmands Col and cook him yet another steak, while also bringing him extra socks and a new, big 3-cell flashlight for the nocturnal descent into Madison Gulf, a spot where Chris anticipated trouble. So Bob waited at the Crawford House together with the anxious parents; the calculated moment of Chris's arrival was 12.35 p.m. With jaunty air he stepped down the stairs of the railroad bridge at 11.45, well ahead of schedule.

What he had done and thought during this first and hardest portion of his run he cannot himself describe. "The finest moment was to see the first rays of the sun touching the top of Mt. Washington, while I stood on the summit of Lafayette", he said. And added, "The Garfield Ridge Trail was a mess, but the boys at Galehead were awful nice, particularly the Blatchford boy, and on the run to Zealand I almost hit 4 miles an hour". But of the fears of not lasting through the endless miles, of the awe of seeing Mt. Washington so terribly far away and having to get there and beyond, he did not speak.

So far he had not rested at all, and 30 minutes, scantily measured, was all he would allow himself at this point. He was friendly enough, but very serious, very taut. New socks, a steak, a bunch of grapes, most of a quart of milk, and off again!

Bob Underhill was taken to the Jefferson Notch road, went by Caps Ridge to Edmands Col, and had time to spare in setting up the cooker. Other trampers watched the performance with amazement, as the ragged runner came, ate and left, this time in fine spirits. Most of the uphill work was done, the goal in sight. Now if only the knees would hold! In Madison Hut Jim O'Kane waved him on. "Doing 'em all this time, Chris?" And he had gained the precious daylight for Madison Gulf. Everything went smoothly except for a sudden, totally unprepared-for rise in the Great Gulf. "Lowe's Bald Spot! Drat it!" This nubble he will most likely long remember, with loathing (and the view is so good!). In Pinkham Notch we were waiting, the car full of good things, but our supply of steaks had run out, to his annoyance. Pork chops had to do, and he ate them while walking the highway, drank pineapple juice, but the legs never stopped moving at a pace none of us could maintain. We drove ahead of him, stopped and cheered him on.

At the Glen House, in the dusk, we left him for the last time, knowing that everything would come out fine. I asked him whether he wanted to spend the night at Carter Notch Hut, but he said no; he would walk out and come home. Our car was left for him at the Glen House, but we became anxious afterwards at letting him drive the 7 miles to Randolph all by himself. (Would he suddenly be seized by overpowering sleepiness? No, he is a sturdy lad.) He gave a last burst of speed, had a moment's difficulty finding Carter Notch Hut in the dark, woke up Jack Ste-

vens to have him verify the time at 8.53 p.m., and trotted back out through the dark. These are his times in detail (0:00 standing for his starting time of 4.12 a.m.):

PLACE	TIME (Hours)	TIME BET. HUTS	DISTANCE BET. HUTS	RATE (M.p.h.)
Lonesome Lake	0:00			
Franconia Notch	0:19			
Greenleaf Hut	1:17	1:17	4.33	3.38
Lafayette Summit	1:51			
Garfield Summit	2:50			
Galehead Hut	3:48	2:31	7.25	2.88
South Twin Summit	4:16			
Zealand Falls Hut	5:50	2:02	8.00	3.97
Crawford House, ar.	7:30	1:40	5.00	3.00
Crawford House, lv.	8:00			
Lakes of Clouds Hut	10:11	2:11	7.00	3.21
Edmands Col, ar.	11:35			
Edmands Col, lv.	11:48			
Madison Hut	12:29	2:18	7.33	3.19
Pinkham Notch	14:43	2:14	6.10	2.62
Glen House	15:33			
Carter Notch Hut	16:41	1:58	6.75	3.43
Franconia Notch to Crawford Notch		7:11	23.25	3.24
Crawford Notch to Pinkham Notch		6:43	20.43	3.04
Lonesome Lake to Carter Notch		16:41	51.76	3.10

(The total distance walked, including the ascent to Lonesome Lake Hut and the descent from Carter Notch Hut, was 56.5 miles.)

In these figures very good planning is visible. His speed for the last miles of the trip is no slower than for the early ones. To take the Crawford Path *upward* at 3.21 m.p.h. is amazing, and the rate of 2.62 m.p.h. from Madison Huts *down* to Pinkham Notch is really the only evidence that the long trek had taken its toll. His knees were beginning to hurt, so he sat for a minute on the headwall of Madison Gulf, his knees drawn up to his nose, and munched a few raisins. This, he said, relieved the pain. As to food, quite contrary to Bert Malcolm's method of carefully worked-out schedules, he was quite casual. Steak, raisins, pineapple juice were probably the most favored items, but when, where and how much, those things were dictated by chance and opportunity.

There was some publicity of this event and several voices were raised to ask, "Now, Christopher, are you going to try for Bert Malcolm's other record, too, and go over all the summits?" Indeed, he toyed with this idea for some time, but finally decided not to try it, at least not just yet. The reason was as much a psychological one as anything else. Beating the first record by better than 5 hours, although a grueling test, was spiritually a gay adventure, and his heart knew from the beginning that it would be possible. Now, on the other hand, there stood the figure of 16:41

set by himself and which, to satisfy ambition, he had to attack. Anything worse than about $17\frac{1}{2}$ hours would leave a bad taste in his mouth. And this would make the second trip devoid of what little joy there is in it, and make it a frantic, bitter fight, eyes on the watch all the time.

Instead, Christopher now turned to the Mahoosucs as a fresh field of action. He had never been on them before, but here again was an old record of thirty-one years' standing, set by the famous Bob Monahan of Dartmouth, who in 1927 walked from Grafton Notch to Gorham in 10:27. Next to the Hut System, this is the greatest classical run of A.M.C. lore. Its 28.75 miles embody a total cumulative rise of 10,320 feet. It is a little hillier than the Hut System but, of course, only about half as long. Hanging up this new record took three trips and was also quite a little adventure. The first trip was called a "practice run", but not quite honestly. It is nice to be able to say to oneself, "It is just a tryout, to get to know the land and to have a few time data", but from a certain point on, one wants to be able to change his mind and mean business. The night of August 23-4 was cool and the sky clear. Breakfast in Randolph at 3 a.m. and a drive through thick fog to Grafton Notch, where it was still dark. A wait for the moment when the flashlight would become unnecessary. 5.40 a.m. and off! The steepest piece comes first: 2680 feet of rise in 1.51 miles to Old Speck summit. The A.M.C. guidebook allows $2\frac{1}{2}$ hours; he took it in 46 minutes! He found two sleepy boys in the Speck Pond Shelter and surprised them, coming by without pack at quarter to seven in the morning. Everything went smoothly, summit after summit. The only "steak-station" available was Gentian Pond Shelter and it was arranged that we should meet him there. It is $16\frac{1}{2}$ hours, guidebook time, so my guess was that he would do it in seven. We planned to be an hour early, and finally I ran ahead, arriving at 5:50 hrs. after his departure (i.e. 11.30 a.m.). At the shelter there were the remains of a can of chicken and a scribbled note: "Here at 5:30, left at 5:45. Sorry no steak. Please red-rag Gorham exit so I won't waste time finding trail. Coming in under 10:00 hrs." We had missed him by five minutes!

A quick re-calculation showed that the boy miscalculated and would arrive in all likelihood in about $8\frac{1}{2}$ hours. The exit was hung with red rags and I set up a joyful vigil at the R.R. bridge over the Androscoggin at Gorham. But $8\frac{1}{2}$ hours came and went, 9 hours also, and finally 10 hours and no signs of him. Joyful expectation changed to wonder, to worry, to the certainty of disaster. It was 10:30 after departure when he appeared—from the other side, by car, in the company of Bob Underhill and our entire "steak-crew"! Well, at least alive and well! But what had occurred?

Near Dream Lake it had suddenly happened: the trail ended in a lumbering area. Deep, mucky ruts everywhere, and no way to know where the trail should go. Dream Lake was before him, so he went on, went by mistake to the south side of the lake, found the A.M.C. map confusing; so took to bushwhacking for a full hour, saw the record slipping by, gained a trail, found the AT (Appalachian Trail) marker on it, thought that it was the Mahoosuc Range Trail—and came out in Shelburne!

A trip of investigation fixed this all up. Two days later, with calm eyes and without hurry, the matter looked simple. Dream Lake and the lumbering and the missed turn were all red-ragged, and Chris trotted through over the southern end of the range just to be sure.

And on August 28 he ran the course in earnest. The self-effacing Bob Underhill was ground-crew at the start (6 a.m. on the dot), also at Gentian Pond (5:20, ten minutes better than last time), but at the end even he could not predict Chris's final burst of speed, which brought him "clomp, clomp" over the R.R. bridge and down in 8:06½ hours. Bob, plus witness, came ½ minute too late and signed the attest at 8:07. Chris looked haggard but happy. He sat down in the car and finished a whole quart of soda-pop. He had run down from Mt. Hayes at a full gallop, attaining 6.5 m.p.h. for the home stretch. This is the score-sheet in detail (Time I, August 24; Time II, August 28):

PLACE	DIST. (Miles)	ASCENT (Feet)	TIME I (Hours)	TIME II (Hours)	RATE II (M.p.h.)
Grafton Notch	0.00	—	0:00	0:00	
Old Speck	1.51	2680	0:46	0:42	2.15
Speck Pond	2.75	200	1:10	1:04	3.38
Mahoosuc Arm	3.65	380	1:25	1:19	3.60
Mah. Notch, foot	5.15	—	1:48	1:41	4.09
Mah. Notch, top	6.10	300	2:15	2:07	2.19
Fulling Mill	7.12	960	2:35	2:30	2.66
Full Goose Sh.	7.63	—	2:45	2:39	3.40
Goose Eye, N.	8.75	750	3:03	3:00	3.20
Goose Eye, E.	9.75	440	3:23	3:20	3.00
Goose Eye, W.	10.25	180	3:30	3:27	4.29
Mt. Carlo	11.55	480	3:57	3:53	3.00
Carlo Col	11.95	—	4:03	3:58	4.80
Success Tr.	13.82	580	4:34	4:27	3.87
Mt. Success	14.45	420	4:45	4:39	3.15
Gentian Pond, ar.	17.35	500	5:30	5:20	4.24
Gentian Pond, lv.			5:45	5:30	
Dream Lake	19.50	620	6:27	6:04	3.79
Wocket Ledge	20.60	300		6:20	4.13
Page Pond	21.35	40		6:31	4.09
Cascade Mt.	23.52	800		7:08	3.52
Mt. Hayes	25.61	670		7:38	4.18
Gorham	28.75	20		8:06½	6.50

(The ascents are the totals of all the intermediate ascents, with the descents disregarded.)

For lovers of figures there is interest in comparing the times of the two runs. They are in close parallel; over the three peaks of Goose-Eye, for instance, he held on tenaciously to a lead of 3 minutes. The differences in m.p.h. reflect the ups and downs of the terrain, the rocks in Mahoosuc Notch (2.19 m.p.h.), a certain weariness up Fulling Mill Mountain (2.66 m.p.h.) but, in the last five figures, the good effects of the Gentian Pond steak.

Christopher himself found the second run much more of an ordeal than the first. He had not had enough sleep the night before, the day was warmer, there had been no rain, and possibly also the climb of Old Speck in 0:42 was foolhardy. He suffered from thirst, chewing Oxalis leaves at times, and once, in desperation, took up a clump of wet moss and squeezed its water into his mouth.

Enough running for one summer, certainly. Two great records broken, and by percentage margins of 23% for the Hut System and 22% for the Mahoosucs. How much of all this was natural endowment and good luck, and how much was the result of training and organization? Certainly Bert Malcolm trained himself methodically over long periods of time and went at it more scientifically. Still, some observations of Chris's may have value for others. (1) One needs at least three nights of early bedtime (8 p.m.) to be rested, and the same amount to recover from a run. (2) One is never cold on such a run; shorts and T-shirt are really enough (the morning temperature was as low as 44° F.). (3) Nothing to say about food, beyond what has been mentioned. Medical men should be consulted. (4) On the run itself the trick is to hold your speed so well under control that you feel at any moment "as good as when you started". (5) *Walk*, don't run, except for the last, reckless endspurt and on smooth, gentle downward slopes. (6) Don't climb in huge steps, yanking your body up over steep pitches, but keep in even motion. (7) Also, don't jump down steep inclines, landing with a thump on both feet. This costs knees.

Bert Malcolm tells us that he felt gay as a lark during his run, singing on the way, and joking with the boys at every hut. Christopher did not sing, or rest more than an occasional minute. The Hut System route, in particular, was a grim business which one does not repeat for fun.

But whoever is warmed by the inner fires of ambition looks back on the long hours of concentrated effort with joy—or, at least, with pride.

AUGUST CAMP IN THE MOUNTAINS

by MARY B. SAWERS

OUR ROAD HAS BEEN HARD-PACKED DIRT since we turned off the blacktop some miles back and headed directly toward a dip in the range of hills we have been approaching for the last hour. But now, as we rattle over a wooden bridge and pass the last house, the road becomes no more than a mere cart-track between farm and field, although indeed it shows signs of recent heavy travel. We swing wide of a puddle, labor up a steep grade scattering pebbles and stones with the wheels, round a bend, and pull up abruptly as the view opens before us.

A broad meadow, bounded on the right by a line of trees along the banks of a stream, stretches to the base of a mountain overlooking the valley. In the foreground a cluster of tents and a long table over which a canvas marquee is spread present a busy scene. Figures bustle about, bearing gear and luggage. Along the edge of the meadow backed against the woods, and along the stream banks, are other tents.

We take a closer look at the mountain, which dominates the view. We shall come to know it in all its moods before the next two weeks are over. We shall work our way up its slopes through heavy undergrowth; we shall sun on its rock ledges, looking down on camp. We shall stand on its highest point and look off toward range upon range of mountains lying beyond, in sun and shadow. We shall see it shrouded in mist and rain, and aglow with moonlight. Its familiar contours will welcome us home on many an afternoon as we return from ventures far afield.

The scene is bathed now in the warmth of the north country sun. Atop the flagpole beside the dining tent the Stars and Stripes and the A.M.C. flag snap in the northwest breeze.

Whether the locale be Riley Lunn's pasture and the Percy Peaks in New Hampshire or an aspen clearing in the shadow of the Maroon Bells in Colorado, August Camp is a way of life. The seasoned August Camper may find the familiar arrangement of tents nestled amid unfamiliar peaks, their wild and tempting outline promising new delights. He knows well that he will find such comforts as camp life affords, experienced leaders to show the way and, above all, companions whose feeling for the high country matches his own.

MARY SAWERS joined the Club in 1938 in New York. Later, in Connecticut, she has been Secretary of the Connecticut Chapter (1945-6), Vice-President of the Club (1956-7), member of the Appalachia Committee (1957) and chairman of the Committee on Chapters (1957-8). She was a member of the August Camp Committee for four years (1943-6), and in 1957 attended her thirteenth Camp.

August Camp is not limited to a few hardy seasoned campers. Anyone who is active and likes to share camp life will find himself at home. To the first-timer, August Camp offers high adventure. It provides a chance for those who might otherwise never become acquainted with the high country to live in the mountains for a time at small expense. Each year newcomers find themselves caught up in a swiftly moving drama from their first day on the heights to the final one with its farewells to friends proven by every test which life in the open offers.

Cooperative endeavor is the theme, as in all A.M.C. activities. The camp manager and crew are full-time paid employees but the leaders are Club members, or occasionally guests, who receive no pay beyond their expenses and are just as much on vacation as are the campers. Their skill, care and contagious enthusiasm have gained untold new friends for the wilderness. Trips of varying degrees of length and difficulty are offered, three or more each day, so that each camper may find his own level of strength and skill. Under this system, the victim of "August Camp fever", who wants to go everywhere and do everything, is faced with making a daily decision on which trips to forego.

A nomad camp without a home, August Camp is stripped to the essentials to such a degree that the Club's permanent camps seem luxurious by comparison. "Simple but adequate" furnishings in each tent consist of a cot, a water-bucket and a basin. This Spartan setting presents no hardship to the August Camper. His primary concern is a full day on the mountains in company with like-minded friends. In his scale of values, climbing companions and nearness to the peaks at low cost outweigh such amenities as hot baths and electric lights. He appreciates, too, an early start in the morning, with breakfast under his belt, lunch in his pack, and the knowledge that dinner will be forthcoming on his return with no effort on his part.

Evening dress at August Camp is likely to be long johns, ski pants and a wool shirt; the pervading odor a blend of "bug juice" and wood smoke; the view a dark mountain profile against a starry sky.

The sounds which emanate on a summer's night from the group gathered under the shelter tent at the campfire cover a wide range. A voice relates the day's adventures or tells of trips to come; the strains of a favorite song pour forth in mighty melody; or a single sweet voice sings a haunting lay. The sounds are frequently joyous, for camaraderie and friendliness, traditional at August Camp and a natural result of the sharing of adventure, are strengthened by the spirit of unity common to all August Campers—committee, campers and crew alike.

August Camp's table has long been noted for its high quality and generous supply, appropriate to the appetites it must satisfy.

For the past several years campsites accessible by road have been chosen in order to meet problems of equipment and supplies, and the commissary is replenished daily. The quantity has always been generous, but up until the late 1930's lumber-camp food was the rule. In recent years, under the capable management of Lee and Emma Jameson, the fare has reached new heights.

Whenever campers of pre-1954 vintage talk about August Camp the names of George, Charles and Phil invariably come up. The three Learneds of Andover, Maine, were an August Camp institution for a span of thirty years. They were so much a part of it that their departure marked the end of an era.

George was the first Learned to be hired, and the way this came about is best told in his own (written) words.¹

In September 1923 a man came to my home, a man by the name of Poor from Boston. He says "You are a Maine Guide. I want to talk about the mountains in Andover or nearby. How far does the Rd go up by your house?"

I told him some 2 miles. Then he asked all about the names of them and the trails. I told him hardly any of them have trails except the Blueberry Mt. that people go for Berries. I told him the guides of Maine seldom climbed the mts as there was no game or Fish on the Mts.

He says "Next August the A.M.C. is going to have Aug. Camp. We're goin to be at or nearby Andover and I am goin to Recommend you as a Guide for a month."

I went to sleep that night and forgot the talk.

In April [1924] I was in the Milk Store when the Telephone Rang. Ike answered. He says "He is here in the Store." Then Ike says "There are 2 men at the Hotel and they want you to stay here until they have finished supper. They want to talk to you." There was some 20 people in the store. Some says "They are Federal Officers. You had better leave before they come." I says "Hell, I have done nothing, I'm not afraid of them."

In some 30 minutes the 2 strangers walked in. Ike met them and they says "Who is Geo. Learned?" Ike pointed me out. They says to Ike "Do you mind if we have the use of your Office?" Ike says "OK go on in." One of the men says "I am Horace van Everen and this is Dickey. . . . We are here to locate a Aug Campsite but we are too early as Andover has two feet of snow. We trust you have decided to take the Job as Guide for this Aug Camp as you have been highly recommended." I says "Yes, I'll try it for one camp anyway." They both says "Good." . . .

So George was hired for the month of August at \$5 a day.

By their talk I decided some what they wanted for a campsite. I worked in dry times for the Maine Forest Service as Ranger so I had Ideas of a site.

¹ George's letters are quoted with his permission.

On the 11th of May at 7.30 they arrived. Three men. Van the only one I ever saw. He says, "Where do we want to go first?" I told him "We will try the Andover-Upton highway." We drove 7 miles to the foot of Dry Brook. I says "Let's look at a open field." Ten minutes walk in to an open field, some 10 acres on the West Branch of the Ellis River. They looked the place over and said "We can't find a better campsite. We will locate here."

Van told me on leavin that night the cook would come from Monson, Me. He told me to hire a helper for the cook in Andover and have him there when the Freight arrived, and a man named Edgerly from Cambridge would look after settin up camp and I would help him on the tents, tables, ect. . . . Phil said he would help the cook. . . .

The tents was the hardest job. The Poles all put in the bottom of the truck and not marked. We would try a tent. It might be a 9x9. If it did not fit we would try another. Anyway we was three days settin up 19 sleepin tents. The first day I marked the tents and the same Number on the Poles until I had them all marked. Edgerly helped take the outfit down the first thing he says "Who marked them tents?" I told him I done. . . .

The campers came and we started work. We went to the Table Rock at the head of the Brook Cut. Home (no trail) by bush whackin. We took a lot of time on the Bald Pate. . . . There was only one beach wagon and one auto so it was most walkin. . . . I went to the campfire and told them about C Pond. We had 3 trips back there.

George describes one of the trips in to his cabin on C Pond:

A 2-day trip and they had a wonderful time. My camp had livin room with chants to sleep 4, cook room 2, Guide's camp 2. Plenty of heavy blankets. Fine weather. In the late afternoon we saw close to camp at one time 7 deer, a lot of Hedge Hogs, Partridge, and at late darkness we heard a Canadian lynx not far from camp. Something like a tom cat only much louder. One can hear its call for 2 miles. . . . Then we had no sleepin Bags, no hiker's tents. . . . No Dehydrated Food so loaded with common supplies.

The following Christmas, "Edgerly gave me a campin cookin outfit large enough for 14 people. Pauline DeVoe a Sleepin Bag; the girls at camp a Knapsack."

The next summer (1925) August Camp rented a private camp at Kidney Pond, Katahdin, with log cabins and a dining hall, and Leroy Dudley was guide. In 1926 no August Camp was held because of a joint trip to California with the Sierra Club, led by Dean Peabody.

Early in 1927 Fred Edgerly wrote George that August Camp would want a new cook. George got in touch with Charles, who said he would take the job. So it was that from 1924 until 1945, when George and Phil retired, the three Learned's were an inte-

gral part of August Camp. They came a few days before camp opened to set up tents; they stayed after the campers had gone, to strike them, to police the grounds and prepare the gear for storage. Standard items of food were generally purchased in quantity ahead of time, and from the supplies at hand the Learneds planned, prepared and served meals. Hired originally as a guide, George soon became chief of the camp crew. Charles was cook. Phil helped them both.

In the early years George often went out with overnight parties as cook. He recalls his first trip up Mt. Carrigain in 1927:

The party spent the night two miles past the [site of the] big Lumber Concern that had camps on the River Rd. . . . The next morning we got a Early start and this was the best Mt that I ever climed. The last Mile toward the summit we climed 1000 feet with a new view almost every step we took. . . . A fire lookout and a good sort of man. He told us all about the mts.

A party went again the following week and slept out on the mountain at the edge of treeline, by a spring.

We picked some hemlock Bows and placed Sleeping Bags and got ready for the night. It was a lovely night and one could see for miles. Around 10.30 the Sky began to look like a full moon and a Ball of Fire appeared and for 2 minutes it was as light as day. It was some 100 feet above the top of the Mt. It made a sort of hissin nois. The warden told us it was a Meteor. . . .

Ten years later I climbed Carrigain and the same warden was there. I says "I was here ten years ago and you was here then." He says "Look out that none of your Party leave a watch this time."

The north woods guide, to our sorrow, is a vanishing breed. George Learned, speaking about the re-opening of a mill in Andover some years ago, wrote, "I won't work there anyway. I never did work in a mill. I love the woods and lakes too well to hear a whistle." But many of the younger generation, although just as well qualified to be guides as their fathers, and no less drawn to the outdoors, find a stronger pull in the economic benefits of steady work and regular hours, and turn a deaf ear to the lure of the woods with all its promise of freedom from confinement.

The Maine guide of song and story is a remarkable man, balanced of mind as well as body. He knows his country not in one season, but in four. He has had little formal schooling; his mind is uncluttered. A shrewd judge of people, since in his business he must guess what men will be like stripped to the essentials, he is remarkably sensitive to mood, has uncommon tact, and a capacity for enduring friendships. The Learneds are men of this breed.

The family relationship of the three Learneds was always ob-



Walter H. Rogers

1910 CAMP IN THE GREAT GULF



George L. Smith

GEORGE LEARNED CLOSING UP CAMP
1943, at Dolly Copp



Andrew B. Fielding

1949 CAMP NEAR STRATTON, MAINE



1952 CAMP ON ABOL POND, KATAHDIN

scure. Few were aware that George and Charles were a generation older than Phil. This situation was further beclouded in 1949 when a fourth Learned, young Phil, arrived on the scene home from the wars, and remarked that both George and Charles were his grandfathers. There were Learneds living in Andover and Rumford when Maine was still part of Massachusetts, and although George and Charles disclaim kinship, they probably stem from the same stock.

In 1937 a first move was made away from lumber-camp fare to provide August Campers with a better diet. A storage tent was set up under the supervision of a member of the committee—first Mary Robertson (Buffinton), then Esther Goodale,—supplied with such items as canned vegetables, hitherto unknown to August Camp's table. George was overheard to remark to Charles about this time, "We'd better start on those vegetables, I hear the dietician woman is coming next week".

Gradually Esther took over the job of making up menus and ordering supplies. George and Charles recognized that it would save them work for someone else to prepare menus and see that there was food in the larder to match. The traditional specialties of the house were continued, of course: beanhole beans on Saturday night, chicken pie on Sunday, tomato bisque with the "clutter" in it, Charles' wonderful doughnuts fried over the wood fire. In time boiled potatoes disappeared from the breakfast table, spaghetti was served no more than once a week, cookies and cake were no longer in evidence at breakfast, and the lunch table took on new life. Esther says, "We did what we could about the coffee".

The war presented special problems, especially for the 1943 camp at Dolly Copp. That year the committee, fired with patriotic zeal, acquired an ancient lumber-camp horse and wagon to transport supplies and mail the seven miles from Gorham. It proved to be a wet summer. Fortunately, friendly relations were soon established with three Glen House station wagons. But in the interval, a twenty-pound roast of beef shipped from Boston and paid for not only in money but in precious ration points, which had languished in the Gorham freight office over Sunday, arrived at camp via horse and wagon—in George's words, "Fit only for fox bait". It was a sad interment!

A mix-up in sugar coupons which resulted in overspending of the allotment by some 100 pounds found Ed Spicer facing a young lady at the Boston ration board, hat in hand. Fifteen minutes of fruitless talk ended abruptly when Ed demanded to be taken before the firing squad. Dazed, the girl got rid of him as quickly and quietly as possible.

During these years the three Learneds made up the entire paid staff of August Camp. They were up at daylight getting the fires ready, having their own breakfast, making hot bread or muffins,

preparing for the hungry horde. By rising time for the customers, 6.30, they had done a day's work. "Sleeping their lives away!" George would mutter as he circled camp blowing the rising whistle, always careful to avert his eyes as he passed the women's tents. The whistle disappeared long ago and in recent years camp has been wakened by a moose horn. Blown enthusiastically by a member of the crew, this has the virtue of getting through to the deepest sleeper within a distance of a mile or so. The boys always go all-out on this chore, possibly prompted by the same thought which George had.

As Camp grew in numbers the pressures of work increased, but for a long time the staff remained the same. At one of the early Adirondack camps, when numbers first threatened to burst the seams, word got around that if more than fifty campers sat down to a meal the Learneds would give notice.

What the Learneds may have said among themselves about the campers we shall never know, but they never gossiped with the guests. George's invariable habit, when he thought someone was about to bear a tale, was to remark with finality as he got up to go about his business, "The less said about them things the better".

George and Phil retired at the end of the war and the following summer (1946) at Katahdin, on a site near the confluence of Abol Stream and the West Branch of the Penobscot where the bridge now stands, the first crew of boys was brought in. By the end of that season it had become apparent that operating August Camp had reached such proportions that a full-time paid camp manager was necessary.

That same year saw the end of the picturesque open cookfire which under Charles' skillful hand had produced so many delectable dishes—meats, hot breads, pies. The fireplace was made with a backwall of fieldstone to take four-foot cordwood, and the fire burned twenty-four hours a day. During rain a large tarpaulin would be rigged high overhead. The cookfire was a rallying point for campers, who enjoyed watching Charles, wearing heavy asbestos gloves, tend his big kettles and manipulate his Baker ovens with a long-handled shovel. But as camp increased in size this method became impractical and the committee reluctantly shifted to two Maine camp wood-stoves.

Charles continued to cook for August Camp through 1954. On the occasion of his 25th anniversary in 1952 at Abol Pond, some of the members of the first section presented him with a wool shirt one night at campfire, with an appropriate speech. Charles was pleased and thanked them warmly, then remarked, with Yankee humor, that perhaps the second section would provide a pair of pants.

Both George and Charles had reached age 75 before they re-

tired and George is now advanced in years. At this writing all three Learneds are living in Andover, and have warm memories of August Camp. In 1955 George revisited the site of the 1939 camp at Katahdin Iron Works.

We looked the place over . . . and went up to the old campsite. Found the old fireplace where Chas done the cookin. Is still standin. . . . The Iron works has changed a lot since we had a camp there. The mill is gorn and the spot grows Alder Bushes. . . . Yet I felt at home there.

After a night's sleep we went to Millanocket and up the Great Northern Rd past the two Lakes and up where the trail starts for Chimney Pond and Katahdin Mt. That's a fine old hill. Yet I never will go up Bakster Peak again. . . .

And he added, "[They] cant understand why I remember all the places the 25 years I worked for the A.M.C."

The first August Camp was held in 1887 at Katahdin Lake, when a total of 19 persons in three sections camped in a 20-foot lean-to with bark roof. The 64th was held in 1958 in the Kennebago-Sugar Loaf-Bigelow region with 160 campers, some 65 at a time, and a staff of nine. The 1900 Camp at Three-Mile Island, Lake Winnepesaukee, tried out a site selected as a possibility for a permanent camp; it proved successful, for Three-Mile Island Camp has occupied this site for many years. The 1913 campsite at Cold River, North Chatham, New Hampshire, and the 1922 site at Echo Lake, Maine, established the locations of two more of the Club's permanent camps.

August Camp has covered the White Mountains in thirty-three visits, from Waterville Valley on the south to Dixville Notch on the north, from Kinsman Notch to the Wild River. The attractions of the Katahdin region are evident in the regularity with which the Camp returns to that area. The Adirondacks proved popular in 1940, in a break with New England, and have been visited repeatedly. About this time canoeing became an established activity; the fleet of canoes and the canoe-trailer are now a popular adjunct to eastern camps. 1956 saw a more ambitious venture, with August Camp based on the shore of Maroon Lake near Aspen, Colorado, amid the 14,000-foot peaks of the Elk Range of the Rockies. This proved to be the largest and one of the most popular August Camps ever held.

By its very nature, administering August Camp is demanding and time-consuming, and the chairman and committee members are as dedicated a group as can be found in a Club where there is no shortage of dedication. Locating sites, arranging for transport of gear, contracting for provisions, hiring staff and crew and finding leaders, always with standards of quality and safety in mind, are not details to be handled over a weekend.

In 1938 Fred Edgerly, after a long tenure, relinquished the reins to Ed Spicer. These two men together held the chairmanship for twenty-five years and earned the gratitude of all, not only for their labors year after year, but also for their determination to maintain the spirit of a wilderness camp in spite of changing conditions. Since 1950 the chairmanship has rotated among committee members. The 1957 camp at Abol Pond set another new high for attendance, and a western trip has added a new dimension. Although it has had its share of difficulties, August Camp is one of the Club's sturdiest as well as oldest institutions.

The August Camper, leader or follower, is rich in memories. He has roused at first light to the song of the hermit thrush. He has known the quiet of deep woods, the smell of sun on pine, the joy of a windswept ridge. He has watched sunrise drench mountain tips with liquid gold and lake reflect the rose and saffron of alpine glow. He has stood, breathless, on top of the world, looking out over a sea of tumbled rock, past the unblinking eye of a tarn, to distant green valleys. He has knelt beside a pool lying amid fern and moss; legend says he who drinks its waters is ever after bound to the hills. He has trod the trails countless miles in sun and rain with friends who, when they meet again, be it next year or ten years hence, will find their friendship unchanged.

As he prepares to go, our novice surveys himself. Two weeks have left him lean and tanned, sharp of senses, buoyant of spirit.

August Camp has seen many changes in its day but the purpose for which it was founded remains unaltered: to enable more than the hardy few to experience, each year, mountain days and nights; to visit forest and meadow and stream; to stand on a peak and feel that exhilaration mingled with humility which is the mountains' spell.

ACKNOWLEDGMENTS

Dorothy T. Wilder, "August Camp". APPALACHIA XIX (December, 1932), 310-11.

Ruth and Charles P. Rarich, "August Camp". APPALACHIA XXII (June, 1938), 130-31.

Elizabeth Roberts (Mrs. William Burton), "August Camp Reviewed". APPALACHIA XXIV (June, 1942), 75-86.

E. S. Spicer, "August Camp". APPALACHIA XXIV (December, 1943), 539-40.

—"Scouting for August Camp". APPALACHIA XXX (June, 1955), 361-6.

J. Donald Adams, "Farewell to the North Woods Guide". *Atlantic Monthly*, July, 1957, 63-5.

Also supplementary material from Esther Goodale, Amy Fowler Warner, John Knowlton and E. S. Spicer.

FOREST HISTORY OF MOUNT MOOSILAUKE

by J. WILLCOX BROWN

PART II. BIG LOGGING DAYS AND THEIR AFTERMATH (1890-1940)

BEFORE ANY SUCCESSFUL LOGGING OF THE HIGH MOUNTAIN SLOPES could be undertaken, the conditions which had largely exterminated the small mills had to be overcome—the conditions, namely, of poor transportation facilities and high transportation costs. The first requisite was ownership of timber in large units which would permit sustained operation over a period of years. With a sufficient volume of timber thus assured, expensive improvements in transportation facilities could be attempted. But in order to secure the maximum volume of timber, necessary to defray the substantial overhead costs, it was a foregone conclusion that utilization would be very close. (This close utilization was later to stir public opinion to the support of the proposed White Mountain National Forest and to a belated recognition of recreational values.)

These large units of timber ownership, which were formed and parceled out in the decade between 1890 and 1900, followed in general the lines of the four main drainage systems: (1) the Wild Ammonoosuc unit on the north and northwest (the most extensive), comprising all that part of the mountain drained by the Wild Ammonoosuc and Tunnel Stream; (2) the Oliverian on the southwest, taken here to include all the west slope of South Peak; (3) the Asquamchumauke or Baker River, including everything from the ridge between South Peak and Bald Hill eastward to the crest of the Blue Ridge; and (4) the Lost River unit, comprising the east and northeast slopes of the Blue Ridge, drained by Moosilauke Brook.

Land Speculation

Two unique characters dominate the transition of Moosilauke lands from a disjointed array of random lots and sundry titles to a logical pattern geared to a sweeping harvest. Although one of these came rough-hewn from his native Benton hills while the other was a polished product of Boston, their techniques were as similar as though they had been trained in the same school of acquisition. The chief distinction is that the city lawyer remained a mysterious figure who functioned in the shadow of his innumerable agents and corporative names, while the homespun lover of litigation preferred to grapple with every situation at firsthand.

Ira Whitcher was born in North Benton in 1815 and died in

Haverhill in 1897. "His early life was one of the hardships of poverty, unceasing toil, and of educational advantages the most limited. In a few weeks in a backwoods school for two or three winters, he learned to read, write and cipher, and there his school education ended."¹ Ira was the sixth son of William Whitcher, and the hardest-bitten in appearance and actions. Many are the tales told of the unrelenting shrewdness with which he worked his way to a larger holding of mountain land than probably any other north-country native ever possessed.

Whitcher intuitively sensed the growing demand for mountain lands before it had become apparent to the other members of the community. Prior to 1880 his activities were restricted to the acquisition of small lots which could be picked up for payment of back taxes. He was inevitably present at every tax sale proceeding in the town. Although not given to high bidding he usually managed to secure his object, for there was little competition for abandoned farm land or inaccessible stands of timber. In 1880 he held only a slim toehold of four original shares or rights to the undivided Benton lands in the mountainous corner of that township. In 1885 he acquired thirty-four more, given up by the Boston, Concord and Montreal Railroad when they shifted from wood to coal burning engines. By 1889 he had collared the rest of the seventy-eight shares which since the earliest history of the town had been "Und", which "denotes undervided Shares" according to the 1865 inventory books; how he did so is in most cases a story lost even to hearsay, although auctions for tax delinquency probably played a considerable role.

Although some of his titles were perhaps dubious, in 1889 Whitcher began the division and sale of these lands. On January 17 a tract containing much of the Big Brook basin, Gorge Ravine, and the upper tip of Jobildunc Ravine was sold to the Winnipiseogee Paper Company. (In December, 1891, this tract was resold to William R. Park, Jr.) On April 12, 1890, Whitcher executed his largest transaction, deeding all but one portion of the remaining land on Moosilauke, plus a tract on Mt. Clough and other lots, to the Fall Mountain Paper Company, which thus gained title to the bulk of the Wild Ammonoosuc logging unit. The portion of the Moosilauke tract which Whitcher reserved from this sale comprised the Oliverian drainage on the west slope of South Peak. The trustee for the Whitcher estate finally sold this tract to James Jewell of Warren, who resold to the Pike Manufacturing Company in November, 1901. The various Whitcher deeds reserved from sale the Tip-Top House property and the rights of way for the Carriage Road and Benton Path.

¹ William F. Whitcher, *Some Things about Coventry-Benton, N. H.* Woodsville, N. H., News Print, 1905.

Ira Whitcher's rival in adroitness was George B. James, better known under his pseudonyms of the New Hampshire Land Company and the Forest Products Company. Most of the Land Company's operations concerned territory to the east of the Moosilauke region. The tracts rounded up in the west half of the town of Woodstock, including most of the Blue Ridge, were comparatively small change to James, but they were vital enough to earn the Land Company the forbidding sobriquet of "the worst trust in the world" from the Rev. John E. Johnson while he was a resident of the town. Under the title of *Help for the Hills, The Boa Constrictor of the White Mountains*, Johnson, who was later a great benefactor of the Dartmouth Outing Club in the development of its mountain recreation program, in 1900 published a diatribe against the Land Company which secured the whole-hearted support of the townspeople. The wrath of the inhabitants was stirred not only by the pending destruction of the forest resource but by the conviction that some of them had been euchred out of their lands.

The New Hampshire Land Company was organized in 1880. By 1890 James had secured some sort of title to all the Woodstock land lying both west and north of the Blue Ridge, for in August of that year it was deeded to the Fall Mountain Paper Company. Also covered by the deed was a large tract running north from the summit of Mt. Jim and east of the town line which included the Beaver Meadow country; most of this northerly tract was incorporated in its Wild Ammonoosuc unit by the paper company. In February, 1898, the Fall Mountain Paper Company was merged with the International Paper Company. The Jobildunc tract, separated from the Park holdings by the town line, was not logged until the Champlain Realty Company, an operating subsidiary of the International Paper Company, went in some years later.

After 1890 James continued the acquisition of lot titles on the east flank of the Blue Ridge. In 1905 he deeded the entire tract for which he had managed to obtain any form of title to the Publishers Paper Company.

Working for James as land agent was a certain Oren James (not related), whose job was to bring in the lots by "hook or crook", and it would seem that full use was made of both methods. The New Hampshire Land Company's formal embrace of a lot to which the claims of others were vague consisted of running and blazing a line around it, thus establishing a sort of ownership by possession. Alaric Demeritt, an old local surveyor, ran lines for the Land Company with a remarkable staff compass which had a tendency to deflect around a good clump of spruce but always ended up on the corner. Mr. George Gordon told the

writer that A. E. Hoxie, in surveying the lands about to be acquired for the National Forest, found the corners to be satisfactory but the lines afflicted with kinks and bulges. But reports such as the foregoing must be evaluated with allowance for possible misinterpretation, plus recognition of the low value of timberlands at the time to which they refer.

River Drive on the Wild Ammonoosuc

Very shortly after the mountain lands changed from speculative to logging ownership, operations were begun upon them. First and largest of the big cuttings was that by the Fall Mountain Paper Company on its Wild Ammonoosuc unit. These operations "were carried on between 1899 and 1914, during which period the softwood was cut from all but the most inaccessible places, hauled to the river, and driven in long logs to the Connecticut. The last cuttings were made at high elevations on very steep country, and while some virgin timber is left above these cuttings, it would be very costly to get."²

Long spring hauls over muddy roads to Bath and Lisbon had been the nemesis of the small mills. The Wild Ammonoosuc itself furnished the answer, but the sinuous rocky channel was not in drivable condition. For several seasons before cutting began, Fall Mountain crews worked the length of the river from Lower Bunga to its junction with the Lower Ammonoosuc above Woodsville. Great boulders and obstructing gravel banks were blasted out, to straighten the stream bed. Four main dams across the river were built or reconditioned to control the flow in "heads" of water to push down the drive. The upper reserve dam was at the mouth of Kinsman Notch, where the U.S. Forest Service dam now stands, and there was a second reserve dam at Upper Bunga. The main driving dam was in Lower Bunga; the remains of its abutments may still be seen just above the bridge where the Tunnel Stream road joins the Lost River road. The auxiliary driving dam was the old Whitcherville mill.

The operating plant consisted of a depot camp at Lower Bunga, where a big storehouse and a boarding house were located, the barn camp at Upper Bunga, and numerous logging camps in the timber. Very early in the operation a camp was located in Beaver Meadow. This served a large territory in the Notch and remained in existence for several years. Other important camps on Moosilauke were located in Little Tunnel Ravine, above the Parker House on Tunnel Stream, at the mouth of Big Tunnel, and below Mud Pond. The crews manning the camps and the drives were largely French Canadians.

Felling and yarding the spruce and fir logs was carried on in

² C. O. Brown, *Timber Report for Wildwood, N. H.*, 1925. Unpublished report, International Paper Co., in U.S. Forest Service files, Laconia, N. H.



Fred C. Gleason

A SNOW-ROLLER, USED TO MAKE SLED ROADS ABOUT 1900

Note three teams and sand-bagged sled



the summer and fall. Looking across Little Tunnel Ravine from the Benton Trail, one may still see the parallel array of skid-trails slabbing the steep slope. All the timber between two roads was felled, to permit rolling the softwood logs to the lower road. The terrain was too steep for ox-yarding, and horses were used to skid the logs to the landings. The main two-sled road followed down Tunnel Stream. Where cutting operations were on slopes close to this road, the logs were landed at skidways on it, to await the winter haul. Where the skidding distance was greater, as farther back in Little and Big Tunnel Ravines, logs were yarded at the base of the slope and then skidded out to the two-sled road on bobsleds in winter. To check speed on the steep slopes bridle-chains were wrapped around the runners and trailing chains on the logs.

As soon as winter made the two-sled roads passable, hauling began. Many of the local farmers ran their teams, both on skidding and hauling, on a per-thousand-foot basis. The main sled roads were kept in good condition, with men constantly tending the bad spots with hay and sand to slow the momentum of the loads. Roped to trees, the sleds were loaded at the skidways on downgrades. Phenomenal loads are rumored to have been piled on, and once the sleds were "tripped" and underway there was no stopping until the big rollway at Lower Bunga was reached.

In talking with the writer, Tilden Day calculated that 500 to 600 acres were clear-cut each year and that by spring about ten million feet must have been accumulated in high decks at the rollway beside the Lower Bunga dam. The spring drives were energetic days, for there was only a brief period in which the innumerable logs ranked high along the stream would have enough water to carry them to the pulp mill in Bellows Falls, Vt. Dr. John M. Gile described to the author how Charles Green and George Chedel, who headed the operation, lived in constant fear of getting mixed up in George Van Dyke's big Connecticut River drive from upper Coös County. Van Dyke branded his logs and would not have been loath to take the unbranded Fall Mountain logs along. His mill was farther down the river—at Mount Tom, Mass.—and he probably would have cut the Bellows Falls boom if Green and Chedel had tried to run their drive first. Therefore they had to wait until Van Dyke's long logs were off the river before they could start their own. All too little time was left before there would be danger of hanging their drive because of low water.

The logs were bucked into 12- to 16-foot lengths at the rollway, to facilitate passage in the shallows of the Wild Ammonoosuc. When spring floods were at their peak the working day started at three or four o'clock in the morning and lasted until after dark. All the dams were connected by telephone and the release of

water was carefully timed to build up heads and maintain them as the drive passed down to the Lower Ammonoosuc. Austin Hall, who had been gate-keeper at both the Lower Bunga and the Whitcherville dams, gave the author a graphic account of the launching of the drive. The men ate the first of their four meals for the day as the head was coming down from the Notch. Some of the landings were tipped into the nearly-dry riverbed before the head struck, and after it came logs were spilled into the foaming torrent as fast as possible. It was dangerous work; one logger was instantly killed when his pick-pole jammed and flipped him into the grinding mass of logs in the river. On at least one occasion some of the rollways gave way prematurely, when they thawed from beneath.

On normal days it was possible to drive three heads, and under exceptionally good conditions four. Crews of men were in constant activity along the river, locating and breaking up jams. Dry wings piled up on the bars along the channel; these had to be worked off with pick-poles, or dynamited. When the main channel was blocked and a head of water piled up behind, it was a chilly and perilous task. Frank Estes, foreman of the drive, was a copious dispenser of dynamite. Harvey Hosford vividly depicted Estes' methods for the writer. "A great one for shootin' 'em", Estes never used less than forty sticks per charge. In blowing one dry wing he showered the roof of a shed, in which the crew had taken refuge, with chunks of pulp like a monstrous hailstorm. On another occasion he blew a jam under the railroad bridge and his crew had to spend some time chopping hunks of spruce from between the ties. It is reputed that Estes met his picturesque end on Lake Mooselookmeguntic, when his boat sprang a leak while he was sleeping off a "logger's celebration".

"The last days of the Wild Ammonoosuc", the big drives might be called. With the spruce timber skinned off as far up as the most enterprising jobber (several of whom succeeded the Company operation) could go, and with the trout-holes blown out of the river, Benton had few resources left to tap. It must have been a grandiose era while it lasted, but in fifteen years the gamut was run. The opportunity for the farmers to haul logs and supplies, and to sell milk and vegetables to the Company, was gone. The migrant laborers, once boisterous and well-fed, disappeared, and their camps rotted away. Floods ripped out the dams and entire hamlets like Whitcherville vanished completely. Twenty-five years later there was very little material evidence from which the tale could be pieced together.

The hardwoods in the spruce-hardwood transition zone were not logged in the Fall Mountain pulp operation. In 1921 a hardwood-flooring concern became interested in the Wild Ammonoosuc hardwoods and purchased two million board feet of stumpage

from the International Paper Company. The Acer Lumber Company set up a small mill in Lower Bunga to saw rough lumber for the plant. However, the company was handicapped by poor quality of timber and by excessive optimism as to markets, and went into bankruptcy by 1927. According to Edgar Hirst, who served as assignee thereafter, and to Robert S. Monahan, of the U.S. Forest Service, the Acer cuttings showed that spruce comes in fairly well with the removal of the old hardwoods, provided the openings are not too extensive.

In the winter of 1930-31 the United States finally obtained title to the International Paper Company's Wild Ammonoosuc tract, after years of negotiation and much variation of opinion concerning the values involved. It was necessary to subject the land titles to condemnation proceedings, a practice more than justified by the manner of the original formation of the unit. Because of the fact that the cuttings in the pure coniferous stands of the Canadian Zone had been made on the fairly small scale of usually not more than 100 acres per year per camp, regeneration has been excellent, according to the view of Julian Rothery of the Forest Service. Horace Currier also suggested that the dense and fairly uniform stands of regeneration on the steep slopes in Little Tunnel Ravine may be attributed in part to the even distribution of the slash resulting from the logging method.

Since 1933 the Forest Service has made numerous hardwood timber sales in the Ammonoosuc district. The hardwoods have been injured by the falling spruce and suffer from various degrees of top-rot. The birch was trucked to the Johnson Lumber Company mill in Woodstock to go into furniture and bobbin stock, and the maple sold to the heel factory in Lincoln.

Rival Systems on the Asquamchumauke:

(1) The Gravity Railroad

Though William R. Park, Jr., acquired the Benton portion of Jobildunc Ravine in 1891, he was not at first in a position to commence operations there because he lacked sawmill facilities. In 1896 the Mead and Mason steam mill in Warren burned down. This gave Park an opening. He bought the site, the mill was rebuilt, and a new and higher dam installed to enlarge the pond. Logging commenced immediately after Camp 1 had been constructed on Big Brook, a mile and a half beyond Merrill's Mountain Home. Logging conditions were comparatively easy. The slopes were moderate and the Carriage Road furnished an excellent two-sled road right past the camp.

Park soon expanded his scope with the construction of two additional camps—No. 2, at the junction of Gorge Brook with the Asquamchumauke, and No. 3, somewhere near the Hubbard Brook notch. Operations at Camp 2 confronted Park with the

old problem of excessive transportation distances. The camp could be reached only by a trip of two miles up the steep-sided gorge of the Asquamchumauke above the high iron bridge farthest out in East Warren. A roadway was carved up the gorge and logs were sledded down during the first winter of operations. But Park was not a man to let obstacles bar his path. He decided to build a railroad from the high bridge up the gorge to Camp 2. The purpose was to increase the cut of the mill by keeping the log supply coming in all year round. The chief merit of the location selected was that on the short, steep run gravity furnished more than enough power to move the loads.

In the summer of 1901 Park proceeded with the construction of Warren's second railroad. Equipment was of the simplest, consisting merely of light steel rails and two sets of trucks of the type commonly used in mountain logging. The trucks were hauled up the track by a string of horses in single file. At the top of the grade the two trucks were spaced according to the length of the logs to be loaded. When the load was securely lashed the log car was released and rapidly gained momentum as it dropped from the Camp 2 plateau. The car carried a load of 9,000 to 10,000 feet per trip and made two trips a day, which furnished a supply of two-thirds of the capacity of the mill. The big handicap was the necessity of reloading the logs on wagons for the five-mile haul to the mill; the wagons were limited to loads of 2,500 to 3,000 feet. The railroad itself was unusable in winter, but it made an excellent sled road.

Hand-set brakes were the only means of control and some exciting moments were furnished the operators of the tiny train. The Warren Town Report for the year ending February, 1903, contains the following notation under the heading of Vital Statistics: "Aug. 5, 1902, in Warren, Joseph Tomaso, male, 40 years, born Italy, laborer, father and mother born Italy, cause of death—accident, physician reporting, G. A. Weaver". This terse statement is believed to be the only written record of the one fatality sustained in connection with Park's great venture. The Italian was operating the train and, when the brakes failed to catch, he feared that the car would plunge into the gorge. Jumping for his life, instead he landed on a rock pile and was killed. The train stayed on the track until it reached the end of the line below the iron bridge, when it crashed off into the woods. The trucks were repaired, but on another occasion the following summer the brakes again failed to grab. Remembering the Italian's rash leap, James Ward clung to the wildly careening load until the iron bridge was reached, where he jumped off safely into a sandy spot. There being no bumper the car again forged deep into the woods at the end of the line. The outshoot at the foot of this notorious line may still be discerned slabbing the hill



TRAINLOAD OF LOGS FROM LOST RIVER FOR JOHNSON P.O.



LEDGES LOGGED BY MCGRAW

In foreground, new Forest Service dam on the headwaters of the Wild. Ammonoosuc

above the Warren-Woodstock road at the bend in the road just below the high bridge.

Upon her father's death Miss Ruth Park assumed charge of the family tract. Her most noted feat was the sale, single-handed, of the tract to the Parker-Young Company in December, 1923, for a tidy sum. Except on the steep upper slopes, the spruce had been skinned almost clean in Big Brook and Gorge Ravines and largely replaced by a vigorous hardwood growth. Spruce and especially fir are now slowly pushing into the hardwood canopy, but furnish uneven stocking for a new stand. The present dominance of hardwoods over most of this lower area makes its future for pulp production somewhat doubtful, unless release cuttings can be secured. Practically all the virgin timber left on the former Park tract was flattened in the 1938 hurricane, including the few patches on the 563 acres in Gorge Ravine sold to the Dartmouth Outing Club for its ski development in 1933.

(2) *The Log-Hauler*

From about 1916 to 1924 the Champlain Realty Company whittled intermittently at the largest remaining stand of spruce on the mountain. Unlike the spruce from the adjacent, earlier Park operation, all the logs cut on the International Paper Company land went into pulp. At first the Champlain Realty operation used old Camp 2 of the Park cutting; the only new building added was the stable, which was subsequently converted into Dartmouth's first Ravine Camp (burned in 1935). During the first winter two-sleds hauled long logs to Warren, where they were bucked up in a slasher mill. In the next two winters a Lombard gasoline log-hauler operated from Camp 2. It was driven by Bernie Andrews, son of the walking boss, who made four round-trips a day from Camp 2 to Warren, starting before daybreak and working till after dark. Five pairs of sleds, with five thousand feet on each sled, were drawn by the hauler. Running out of gear down the old railroad grade, Bernie used to build up great momentum and on more than one occasion came close to taking off into the Asquamchumauke. Later the operation was moved to Camp 3, farther up the ravine, and a slasher mill installed. Company teams using double-tier rigs, and local teams jobbing for the company, drew cords of pulp-lengths to Warren.

There is no clear explanation for the failure of the International Paper Company to have the Champlain Realty harvest all its stand. Two factors are probably of paramount importance. The tract may have been deemed too small for a continuance of profitable operations, whereas Parker-Young, which had already acquired the Park tract, could look forward to a larger volume of cut for a single set of improvements. The other factor that must have prompted the International Paper Company to sell to

Parker-Young was the high percentage of redheart known to occur in the old stand on the flanks of Mt. Watnomnee and Mt. Braley. This situation may have been responsible for the failure of Parker-Young to initiate any logging activity, pending a change in market conditions.

The last operation in virgin spruce³ on Mt. Moosilauke occurred in the winter of 1938. Under a special clause in its deed to the Gorge Brook tract the Dartmouth Outing Club was permitted to remove logs from the fringe of the old-growth Parker-Young stands on the slope to the east of Camp 3. Erection of the new D.O.C. Ravine Camp, to replace the old stable which burned in 1935, was completed during the winter of 1939. The sturdy rafters and giant ridge-pole, more than 30 feet above the floor, will long be a testimonial to the mighty spruce that once filled the ravine.

Steam and Steel along Lost River

As an operating company, Publishers Paper Company was the most unmitigated fizzle of an enterprise ever launched with an eye cocked at the tall spruce sticks of Moosilauke. In its first season, presumably the winter of 1906, the company cut pulp near Agassiz Basin and two-sledded it to North Woodstock depot, but they were financially unsuccessful and made no further attempts at pulping. They built two mills, a small steam sawmill on Lost River and a large mill in Woodstock village, but soon sold both after unsuccessful attempts to operate them. The first went to G. L. Johnson and the second, eventually, to the Woodstock Lumber Company.

Publishers Paper finally saved their skin by selling some of their stumpage around Elbow Pond to the Woodstock Lumber Company and the rest, including all the timber on the Blue Ridge, to G. L. Johnson. Johnson operated most of the Woodstock Lumber stumpage as well as his own. He had already established himself in the county to the extent of becoming a post office; Johnson P.O. was a thriving lumber settlement, complete with a large steam mill, at the foot of the brook flowing down from Bog Pond, north of Moosilauke.

G. L. Johnson, from Monroe, N. H., was perhaps the smartest logger ever to set foot on Moosilauke. Esteemed "a shrewd old cuss", he was reputedly "so crooked he could hide behind a corkscrew", but his word, once given, could be depended on absolutely. Johnson was the only operator to grasp the idea that the way to skin the spruce off Moosilauke and get rich doing it was to build a sturdy, economical railroad and whisk the timber off

³ After this thesis was written, a substantial salvage operation was conducted in Jobildunc Ravine with a truck road built above old Camp 3 and the pulpwood hauled to Lincoln. In 1957-8 second-growth fir from some of the old Park cuttings was also trucked to Lincoln.

in jig time. So he borrowed the necessary capital in the form of rails and rolling stock from the Henrys in Lincoln, built his railroad without more ado, and paid off the whole debt in the first winter by delivering all the logs he cut to the Henrys' mill.

Meanwhile the Johnson P.O. mill was going strong on logs still pouring in from his other cutting operations. Gradually these dwindled down and the Moosilauke job became the all-absorbing project in the eyes of the titan of the east slope. To keep both his Lost River and Johnson mills going full blast, he needed more rolling stock and longer lines. A spur was extended to the base of the cascades in Lost River, and another pushed farther into the Elbow Pond country. And Johnson located a Vermonter who already possessed a logging engine. So the firm was expanded to Johnson and Stebbins, proud proprietors of three Shay geared engines and a buzzing spruce empire.

James McGraw was the artful walking boss on whose wiry shoulders rested the responsibility of producing an average of fourteen million feet of logs per year. Bad years and good, "Jakey" McGraw stuck to his schedule, once dropping to a low of six million but wiping out this bad record the next season with a thunderous twenty-six million feet. For eleven years McGraw hammered away until, by 1914, there was hardly a spot of virgin spruce left anywhere on that side of the mountain.

Out through the old field-stands of the abandoned Cilley and Elbow Pond settlements, where the spruce grew so thick "you had to take a candle to see your way through", to the slopes of Mt. Cushman, McGraw pushed Camp 6 as his southern outpost. Above and west of the present Warren-Woodstock road on the shoulder of Mt. Waternomee, big Camp 3 was established, with Camp 7 as a rugged outpost under the rocky ledges to the southwest. Camp 2 was the base for a push into Kinsman Notch. Located on a knoll above the end of the Lost River spur of the railroad, Camp 2, with a horse-powered winch, reeled its supplies up a wooden railroad trestle stretched across the rocky chasm. But Camp 13 was Jakey's ticket to the hall of logging fame. Perched in Kinsman Notch, where the wind rushed through the tall spruce so fast that it created an ominous roar known to the Wildwood inhabitants as the "Bunga Jar", McGraw could contemplate the toughest nut he had yet attempted to crack. This was Beaver Meadow, where the Wild Ammonoosuc and Lost River logging units overlapped and where the Fall Mountain and Publishers paper companies held undivided interests in a certain tract of land. Fall Mountain had got there first and evenly divided the shares by skimming off the cream of easy logging on the smooth slopes rising southeast of the meadow. A 1911 map (in the Forest Service files at Laconia) of the holdings offered for sales under the Weeks Law by the International

Paper Company shows all the virgin merchantable spruce gone from that part of the mountain except for a large patch above and behind the forbidding eminence labeled "South Nigger-head". It appears that this vividly named black crag, jutting out between Beaver Brook and Stark Falls Brook, was the share of "individed" claim which fell to Johnson as operator of the Publishers Paper stumpage.

McGraw did not contemplate long. Starting above the lower ledges he built a logging road, first edging westward around the crag, and then climbing steeply southwestward into the precipitous Stark Falls valley, where the spruce still reared in virgin solitude. All that remained was to devise some means for lowering the long logs from the base of the crag-side road down over the knoll to the meadow below. McGraw soon had a drum secured at the upper terminus, and with the logs snubbed back with an endless wire rope the teams could slide safely on their haunches down the slope. "They sure looked handsome", he told the author, "like they were ready for a fancy drive, with the long sticks rearin' up behind them."

And so the old growth was slipped jauntily out of upper Stark Falls Brook. Had Johnson and McGraw, loggers extraordinary, ever been turned loose in Jobildunc Ravine it is not difficult to surmise what a different aspect it might have borne. McGraw estimated, in talking with the writer, that his total cut, during his eleven years as walking boss for Johnson, must have aggregated 150 million feet. Of this total at least two-thirds probably came off the slopes of Moosilauke.

Johnson's parting touch was the sale of the hardwood stumpage on the tract, which he considered of little or no value, to the Mattson Manufacturing Company of Pennsylvania. Mattson, who was esteemed as a fine but foolish sort in Woodstock, moved his concern into the north country in the fall of 1910 to show the New Hampshire folk how to log hardwoods. He and his men were taken on a grand tour by Johnson's agent, a certain sly Jim Ward. From every angle they were marched around and over certain select knolls until the end of the long day, when tired, but convinced of the vast extent of the remaining timber resources, they returned to close the deal. Mattson bought the Lost River mill, built a chute running two miles on to the high shoulders of Waternomee, constructed a storehouse at Lost River, and established a whole settlement called "Little Canada" halfway to Johnson P.O., where a dry kiln and flooring mill were raised. Johnson hauled Mattson's lumber to the flooring mill on his railroad, and Mattson settled back to absorb a severe financial drubbing. With the timber running far short of expectations in both quantity and quality, he hung on grimly until his mill burned, and then moved back to Pennsylvania.

Johnson lived to regret but one business mistake. In March, 1912, the Society for the Protection of New Hampshire Forests acquired title to a tract of 148 acres in Kinsman Notch, including the famous caverns and the ledges to the north. The ledges bore a scattered stand of old spruce which even McGraw did not believe he could log, so Johnson thought he was driving another shrewd bargain when he gracefully relinquished his claim to the stumpage involved for a substantial amount of cash. But Johnson's mind was not then geared to the sustained income to be received from a properly administered recreational resource. Several years later, in 1916, he visited the thriving new project at the height of the summer season—so Michael McCarthy, superintendent of the reservation, related. After sitting all day in subdued observation of the throngs paying twenty-five cents admission to the caverns, he turned and said, "Mike, dammit, I never should have sold this place, and I couldn't see it".

In March, 1916, the tract of more than 30,000 acres which had been accumulated by the Publishers Paper Company on the east slope of Moosilauke and the Kinsman Range was sold to the United States for addition to the White Mountain National Forest. It included most of the Lost River logging unit. The lower portions of the unit have moderate slopes and good growing conditions, and they have been fitted into the timber-sale program of the Forest Service.

Oliverian Fragments

Most of the timber on the South Peak of Moosilauke below the Warren line had been so heavily cut in the previous period that it was never aggregated into a single unit. Instead, several smaller operations took place there. The largest tract was the one acquired by the Pike Manufacturing Company in 1901, which was intended to serve as a source of supply for the Moosilauke Lumber and Bobbin Company, organized by E. Bertram Pike. However, the tract had received heavy previous cuttings and Pike was not able to have it jobbed successfully. Most of the area was sold to the United States prior to 1915 and constituted the first substantial Moosilauke tract to be incorporated in the White Mountain National Forest. A portion of the Pike lands which did not pass to the United States had previously been set aside for the New Hampshire State Sanitarium for tuberculosis cases, erected in 1909; the property includes about 500 acres. The only recreational improvements in this Oliverian unit are the Great Bear and Glencliff cabins of the D.O.C.

The only other sizable tract in the unit was a block, partly former railroad-fuel land, which was subsequently acquired by the Publishers Paper Company. In March, 1917, it was sold to the United States.

BALDPATE MOUNTAIN, GRAFTON, MAINE

by CHARLES B. FOBES

THE POWER OF SUGGESTION is strong when a person views a landscape. Because of this fact, mountains often derive their names from some characteristic feature or peculiarity of shape. Several names have been applied to Baldpate, the mountain whose bulk forms the eastern side of Grafton Notch.

To the residents of Grafton the east-west axis of the mountain was silhouetted against the sky in the shape of a saddle, due to the deep sag between the East and West Peaks. Thus the mountain became known to the early inhabitants on the north side as Saddleback. Perhaps James Brown, who took his wife to a log house in Grafton in 1834, was the first to call it by this name. The saddle-like form is also well defined from some vantage points to the south, especially Paris, Poland Spring and Bethel. On the eastern side, the people of Andover and Rumford have long remembered this same mountain as Baldpate, because of its barren summit. Today, however, the open ledgy areas are not so prominent as in former years. In close proximity, the occupants of the Bear River valley toward the south think of the mountain as Bear River Whitecap. Halfpenny and Caldwell's *Atlas of Oxford County*, published in 1880, designates it thus. In other words, the impression formed and the name applied depended upon the viewer's position.

There are at least five other mountains or hills by the name of Saddleback in Maine. The most prominent, with an elevation of 4116 feet, lies in the Sandy River Plantation in Franklin County. It is interesting to note that Moses Greenleaf, "Maine's First Map-Maker", designated this mountain as Saddleback as early as 1828, on a "Map of the Principal Rivers, Mountains, and Highland Ranges of the State of Maine". Speckled Mountain (Old Speck) was also shown on the same map, but Baldpate was not indicated. To avoid confusion it is probably best that the Grafton Saddleback should have become known as Baldpate, but most people who have a devotion for Grafton Notch seem to speak of Old Speck and Saddleback. Although the *Guide to the Appalachian Trail in Maine* prefers the use of Baldpate Mountain, the U.S. Geological Survey (Old Speck Quadrangle) has printed the word Saddleback Mountain across the massif that includes West Peak, Baldpate and Little Baldpate.

Baldpate Mountain lies in the townships of Grafton and Andover West Surplus, between Grafton Notch and the Andover-

Charles B. Fobes of Portland, Maine, a frequent and valued contributor to APPALACHIA, says that his forbears settled in Grafton, north of Baldpate Mountain.

Upton highway. The massif occupies nearly eighteen square miles. From the main axis many spurs or ridges run out. Mt. Hittie and Lightning Ledge protrude toward the Bear River valley. Lower spurs called Hedgehog Hill and Sable Hill lie on the Grafton side. The most westerly landmark on Baldpate is Table Rock, which juts into Grafton Notch. Table Rock affords a fine view of the Bear River valley, Sunday River Whitecap and Old Speck, but no vistas to the north are available from this point. Black Mountain to the northeast is hinged to the main summit by a ridge. The elevation of the West Peak of Baldpate is 3620 feet and that of the East Peak or main summit is 3812 feet. The base of the sag between the two peaks is 3420 feet.

It is apparent from Keith's *Preliminary Geologic Map of Maine* that Baldpate is composed of a biotite granite that is cut by much pegmatite. The exact age of the granite is not known but it is believed to have been intruded about the time of the orogeny which ended the Devonian Period. Crosby has suggested that Grafton Notch, at the western end of Baldpate, was changed from a V-shape valley to a U-shape pass when the ice moved down the Notch during the Pleistocene or Ice Age. Since there was great ice activity here, we can assume that the rounded form of Baldpate today is the result of this severe ice erosion. At present, frost action is slowly altering the form, but this work is infinitesimal in the span of a person's life.

Throughout the years the forest-cover type on Baldpate has changed. The changes have been caused chiefly by lumbering operations, although fire, in a limited degree, has been responsible for a sub-climax type of cherry and birch growth. In 1896 Austin Cary, a prominent early forester, in reference to the townships of Grafton, Andover, North Surplus, Letter D, Letter E and Number 6, wrote the following:

Here on the headwaters of the Androscoggin is the chosen home of the spruce. Continuous with the high land of northern New Hampshire, a part of the great White Mountain plateau, this region with its elevation, its uneven topography, and its climate seems to afford the combination of conditions which ministers to perfect development of the spruce. It is a fact, however, that no other part of Maine ever had any such spruce stand, or probably no portion of New York or New England, as is found from here across northern New Hampshire.

From Cary's statement it is evident that the climax forest on Baldpate was truly a spruce-fir type. This fact is difficult to believe today, for we cannot find any extensive spruce forest except on the slopes well toward the summit area. In place of the softwoods there is a hardwood forest that is primarily dominated by beech, yellow birch and maple. The depletion of the softwood

forest began with the settlement of Grafton in 1834. Loggers first cut the choice pine, and by 1856 their attention was turned to the larger spruce and fir. With the advent of a demand for soft-woods by pulp manufacturing interests in Rumford and Berlin, the diameter-limit was reduced and the woods were once again culled of the merchantable trees. It is clear that the appearance of the forest was changing as early as 1871, for William Brewster, the well-known Cambridge ornithologist, in describing Grafton Notch, wrote: "For the next three miles the road runs nearly straight through unbroken and essentially primitive forest, abounding in fine old beeches, rock maples, red maples and yellow birches, but long since despoiled of its larger spruces and balsams".

On Baldpate the flora and fauna are typically Canadian, while on some of the mountains south of Grafton some Transitional characteristics are present. Botanists have found the open ledges of Baldpate interesting as a locale for the smaller plants of arctic or boreal type. Sphagnum bogs and water pockets are numerous on the sag between the East and West Peaks, while the East Peak takes on the character of a fell-field. A few specimens found on Baldpate by members of the Josselyn Botanical Society follow:

<i>Scirpus cespitosus</i> , var. <i>callosus</i>	Tufted club-rush
<i>Eriophorum spissum</i>	Cotton grass
<i>Carex Bigelowii</i>	Bigelow's sedge
<i>Juncus trifidus</i>	Bog-rush
<i>Betula papyrifera</i> , var. <i>cordifolia</i>	Dwarf white birch
<i>Arenaria groenlandica</i>	Mountain-sandwort
<i>Rubus Chamaemorus</i>	Cloudberry
<i>Empetrum atropurpureum</i>	Purple crowberry
<i>E. nigrum</i>	Black crowberry
<i>Ledum groenlandicum</i>	Labrador-tea
<i>Kalmia polifolia</i>	Pale laurel
<i>Vaccinium uliginosum</i> , var. <i>alpinum</i>	Alpine bilberry
<i>V. angustifolium</i>	Dwarf sweet blueberry
<i>V. Vitis-Idaea</i> , var. <i>minus</i>	Mountain-cranberry

So far as I know, no study of the birds found on Baldpate Mountain has been made. It is known however that such species as the gray jay, pine grosbeak, boreal chickadee, Bicknell's thrush and spruce grouse have been seen on the slopes. All these birds are typical of the spruce-fir habitat. Of the larger mammals, the northern white-tailed deer and the black bear roam the lower slopes. Such smaller forms as the red squirrel, chipmunk, porcupine, bobcat and fisher are also in the area.

Early routes to the summit were principally by way of logging roads. "City folk" who visited the mountain almost always hired



Charles B. Fobes

BALDPATE FROM GRAFTON



Charles B. Fobes

EAST PEAK OF BALDPATE



Photo B. P. P. P.

WEST PEAK OF BALDPATE

a native as guide. A popular route from the Grafton side utilized the logging roads on the north up to the saddle between the East and West Peaks. On June 23, 1876, members of the White Mountain Club of Portland, Maine, who explored the mountains of Oxford County,¹ climbed Baldpate. The group included Edward Morse, George F. Morse, John M. Gould and a native of Grafton by the name of A. T. Bartlett. A description of this climb was written by John M. Gould.²

The day was all that could be desired. A clear air, not too strong a wind from the N.W., and comfortable temperatures. We slept well and woke refreshed—a great improvement in the matter of sleeping over anything we have had, thanks to a good bed and mosquito bar. We were up early and went over to Mrs. Bartlett's to breakfast and did justice to her biscuits and fried trout. Then we returned to John Swan's and were off at 6.30, lightly laden. We left a part of the clothing we started with—that is, my shelter tent and Bartlett's coat—on the bars back on the hill, for we found it was going to be warm.

We passed into a clearing once occupied by some strange man who, however, could not make a living up there. Then we took the well-beaten trail into the woods and paddled along in the puddles of water till it became monotonous. We did not rise much for some time. At 7.50 we were only 860 feet higher than when we started.

We came to a place where hundreds of trees had fallen across the track near an old camp which some fellows had burned. Bartlett poured out his maledictions upon the trees and the bad men and then we went on. After two hours of steady walking with usual rests—frequent near the last of it—we came out of the woods into the hollow between two peaks, the valley far beneath us. We went without much delay to the eastern, highest peak and climbed up its steep sides and were soon on the barren, almost level summit. We reached the top at 9.20; time up, nearly three hours.

There were two great rock heaps here, one made as a boundary-line mark between Andover and Grafton, and the other I forget what for. From these I took compass courses while Fred [G. F. Morse] swept the horizon from East to South by the way of North. I also tried myself to draw, but Fred succeeded admirably. Ed [Edward Morse] and Bartlett made a fire on the south side and fought black flies, which didn't trouble us who were shivering in the wind. I also had the pleasure of seeing Bartlett use my rubber blanket to keep warm and upbraided my stupidity in arranging things so that I should carry for a guide instead of him for me! However, I was not much over-

¹ For an account of this Club see APPALACHIA XXX (June, 1955), 381-95.

² The unpublished MS of what follows was kindly made available to me by Mrs. Oliver Gould of South Portland.

chilled. With my opera glass we saw what Ed declared was the Maine General Hospital [in Portland]. He further asserted that he saw the Free St. Steeple (which was taken down a few months ago), but this he said was a joke and called us crows for not seeing the point. Ed is doubtless right about the hospital, though it was so indistinct that I could not see it between the compass sights. But by getting Songo Pond, its general direction is known.

We ate lunch, admired the beautiful view and the new peaks, and then the time came to go. That is always a sad moment—the feeling that you have got to let go of a thing so rich as this and go back to town and to work.

We were off at 2.05 p.m. and came down without incident of note, save that we found a skeleton of some animal and found the crows had been chewing on Bartlett's coat while we were up the mountain. We sent him over to Brooks' to hurry up the horses, while we packed our stuff and nailed up Jim Swan's house again.

We arrived at Swan's at 3.50 (an hour and three-quarters coming down) and left at 4.30 p.m. Brooks furnished us with a wagon, which Ed and I took, while he carried Fred on his buckboard. The afternoon ride and the sunset view of the mountains were superb and we kept turning around and yelling to each other all the way.

In Gould's notes we find his barometric figures for the day's climb. Evidently their purpose was not only to study the view but also to determine the elevation of the mountain. Calculations from his figures by Professor George Vose gave the altitude of Baldpate (East Peak) as 3675 feet. Present-day figures give the height as 3812 feet.

Baldpate has not changed much since the day when the members of the White Mountain Club climbed it in 1876. Today, there is only one designated trail over the ridge from Grafton to the Andover-Upton highway. This is a part of the Appalachian Trail and is maintained by the Maine Appalachian Trail Club.

In conclusion it can be said that Baldpate has no well-known legends associated with it and no prominence gained by any historical incident. It is not sufficiently high to be outstanding. It is essentially a wilderness mountain that has been known only to the lumbermen who have harvested their tree crops for many years. Perhaps a verse from W. Scott Brown's poem is quite applicable to Baldpate:

In wilderness, both great and deep,
You mutely stood, for ages long,
Grim sentinels, to guard and keep
Fair realms that lay in listless sleep,
Unknown from legend, tale, or song.

REFERENCES

- Brewster, William. The Birds of the Lake Umbagog Region of Maine. *Bulletin of the Museum of Comparative Zoology*, Harvard University, LXVI, 38. Cambridge, Mass., 1924.
- Crosby, W. O., and Crosby, I. B. Keystone Faults. *Bulletin of the Geological Society of America*, XXXVI, 623-640, 1925.
- Fobes, C. B. *Grafton, Maine: A Human and Geographical Study*. Bulletin 42, Maine Technology Experiment Station, University of Maine. Orono, Maine, June, 1951.
- Greenleaf, Moses. *A Statistical View of the District of Maine*, with Map. Boston, Mass., 1816.
- Halfpenny, H. E., and Caldwell, J. W. *Atlas of Oxford County, Maine*. Philadelphia, Pa., 1880.
- Hopkins, A. D. Insect Enemies of the Spruce in the Northeast. U.S. Department of Agriculture, Division of Entomology, *Bulletin 28, New Series*. Washington, D.C., 1901.
- Jackson, C. T. *Second Report on the Geology of the State of Maine*. Augusta, Maine, 1838.
- Keith, Arthur. *Preliminary Geologic Map of Maine*. State of Maine Geological Survey. Augusta, Maine, 1933.
- Maine Appalachian Trail Club. *Guide to the Appalachian Trail in Maine*. 5th edition. Augusta, Maine, 1953.
- Norton, A. H. Some Botanical Notes from the Andover Meeting of the Josselyn Botanical Society. *The Maine Naturalist*, VI, 115-117. September, 1926.

IN MEMORIAM

Harlan P. Kelsey, 1872-1958. In the eighty-two years of its history the Appalachian Mountain Club has been fortunate in its selection of presidents of unusual character in important periods. Harlan Kelsey joined the Club in 1897 and became president in 1920 in a period of transition immediately after the First World War. I found him a stimulating and agreeable man to work with. He was always looking forward, always considering whether the Club might not be of greater service to the public and of more value to its members. Many of his suggestions seemed novel at the time they were made, but they were always carefully thought out and well presented to the Council, and many of them were the foundation of later action by the Club.

For many years the membership of the Club and its income had remained fairly constant. Except for the opening of Cold River Camp and the organization of the Worcester Chapter, our activities had shown little change. Small groups got together on excursions and other groups attended Three-Mile Island and Cold River Camps, but except for the annual reception there was nothing of a social nature available to the general membership of the Club.

In 1920 for the first time, I believe, the annual meeting was preceded by a supper which the *Bulletin* notice stated would "accommodate members who are obliged to stay in town for the meeting and give opportunity for a social gathering". I remember this meeting, held in the attic hall of the Twentieth Century Club before that building was remodeled. Although compared to recent meetings it brought together only a small group, it was such a pronounced success that the notice of the March 10th meeting states, "The supper in January proved so enjoyable that it will be repeated this evening". While I cannot say that Mr. Kelsey had anything to do with the supper at the annual meeting, I have a very definite recollection that he was largely responsible for the repetition and the establishment of the custom of supper meetings.

In the four years 1918-1921 the Club's membership grew from 2,000 to 3,066. Of this increase 633 came in during Mr. Kelsey's presidency. It was by far the largest gain in membership in two years ever experienced by the Club up to that time. Furthermore, to increase the Club's usefulness Mr. Kelsey advocated an increase of membership dues to \$8 or \$10. This was more than the members would agree to, but the regular dues were increased to \$5, with a corresponding increase in initiations and life-membership payments. With the increase in membership the Club's quarters in the Tremont Building became inadequate for our purposes, even with the addition of another room. This problem was discussed in Mr. Kelsey's annual reports. The way was thus paved for the acquisition of our present house at 5 Joy Street.

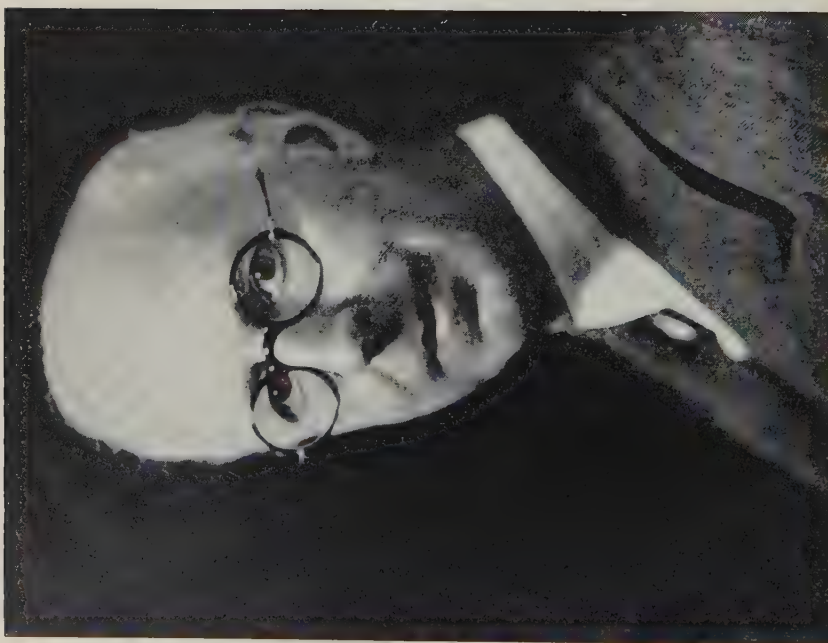
Prior to 1921 there was no system in the opening of trails and the building of shelters and huts. The various committees, with or without Council approval, proceeded to do whatever they thought was wise. The need of a comprehensive plan appeared so necessary that Mr. Kelsey as President appointed a special committee to consider the whole situation and establish a Club policy. This committee was the forerunner of our



Dave Dorn

APPALACHIA PEAK (LEFT OF CENTER)

In the Central Chugach Mountains, Alaska
(See article by Lawrence E. Nielsen in APPALACHIA
for December, 1957, pp. 491-7)



present Committee on Trail, Hut and Camp Extension, which has held to a consistent policy for more than thirty years.

The Merrimack Valley, Connecticut and Narragansett Chapters were added during Mr. Kelsey's presidency, and Ponkapoag Camp was opened. In May, 1921, he suggested an expedition to the Carolina Mountains to determine the exact height of Mt. LeConte, which many people thought might be higher than Mt. Mitchell. The Council voted to authorize the President to appoint a committee to investigate and report on the methods of organizing such an expedition and to consider ways and means for raising funds to defray its expenses. The results of an expedition for that purpose (apparently independently organized) appeared in an article by Paul M. Fink, a member of the expedition, in *APPALACHIA XV* (December, 1922), 304.

In 1920, when I was Councillor of Topography, it was at Mr. Kelsey's suggestion that I went to Washington twice as the Club's representative on the Board of Maps and Surveys, which had been created to eliminate the then existing confusion between the various Government organizations in their map work.

In addition to his service as president, Mr. Kelsey was Councillor of Natural History from 1901-1903, Councillor of Exploration from 1904-1906, and a Trustee of Real Estate from 1910-1916 and again from 1933-1938.

Professionally, Mr. Kelsey was a nurseryman and landscape architect. He had served on the National Park Commission and had been connected with many horticultural societies, serving as president of the American Association of Nurserymen at one time. For his work in conservation the University of Massachusetts awarded him an honorary doctorate.

CHARLES W. BLOOD

Harland Arthur Perkins, 1876-1958. Born in Wakefield, Massachusetts, Harland Perkins was the only son of Charles Andrew Perkins and Rose Augusta Swain. His early education was in the public schools of Wakefield. After completing high school, he served an apprenticeship in Boston architectural offices. He soon opened his own office, becoming a talented designer of single houses. Many of these houses are still outstanding in New England. In 1913 he married Marguerite Tucker of Peterborough, New Hampshire, and they lived nearly all of their married life in a lovely house of his design in Wakefield.

His great interest outside his business was the Appalachian Mountain Club, which he joined in 1901. His capabilities were soon recognized and he was elected Councillor of Trails in 1905; in 1918 he served as Councillor of Topography and Exploration; and in 1933-35 he was again on the Council in charge of huts. He was the architect for all the A.M.C. huts throughout the White Mountains, and continued as an active member of the Hut Committee up to his death. For several years he was chairman for the August Camps and very active on the Excursion Committee. In addition, he helped in the laying out of many A.M.C. trails.

Harland was a former president of the Bear Hill Golf Club in Wake-

field and a vice-president of the Wakefield Historical Society. He was an active member of the Wakefield Baptist Church, where for many years he sang in the choir. For forty years he was a director of the Merchants Co-operative Bank in Boston, until his retirement in 1945, having been a vice-president for several years.

His interests were broad and varied and he was widely traveled, particularly in Italy and Spain.

C. A. NEWHALL

Geoffrey Winthrop Young, 1876-1958. The death of Geoffrey Winthrop Young in a London nursing home on September 6, 1958, marked the end of one of the most distinguished of English mountaineers. Not only has the Club lost one of its best-known honorary members, but the English-speaking mountaineering fraternity has lost one of its finest technicians, authors and poets.

G. Winthrop Young was born October 25, 1876, the second son of Sir George Young, third baronet of Formosa, and Dame Alice Eacy Young. He was educated at Cambridge, where he won the Chancellor's Verse Medal in 1898 and 1899. There he also showed his bent toward climbing by publishing, albeit anonymously, his *Roof-climber's Guide to Trinity*, complete with admonitions for quietness where the proximity of senior members of the college made the danger of discovery serious. He went on to the universities of Jena and Geneva and became an accomplished linguist. From 1900 to 1905 he served as an assistant master at Eton and then became a government inspector of secondary schools until 1913. For the first year of the Great War he was in command of the Friends Ambulance Unit on the northern French front and from then until 1919 commanded the First British Ambulance for Italy, where he lost a leg at the battle of Monte San Gabriele. He was awarded the Order of Leopold for "exceptional courage and resource". After the war he was Consultant for Europe in the Humanities for the Rockefeller Foundation until his appointment as Thomas Wall Reader in Comparative Education at London University in 1932, a post which he retained until 1941. In 1918 he married Eleanor, the youngest daughter of W. C. Slingsby, a well-known member of the Alpine Club, by whom he had a son and a daughter.

While Young made a name for himself as an educator, it was his summers among the Alps which gave him his finest enjoyment. Although there were few, if any, first ascents left in the Alps when he appeared on the scene, there were many new routes to be discovered and he found his share of them—such climbs as the Isolée of the Dames Anglaises, the Brouillard Ridge of Mont Blanc, the W. ridge of the Gspaltenhorn, the S. face of the Täschhorn, the Mer de Glace face of the Grépon, the complete traverse of the W. ridge of the Grandes Jorasses and the first descent of the ridge to the Col des Hirondelles.

The war injury stopped his climbing for a while and he settled down to pass on to others the benefit of his experiences. The first result was the appearance in 1920 of *Mountain Craft* which, even after all these years so full of many advances in the climbing art, still ranks as the leading work in English on climbing technique. This was followed in

1927 by *On High Hills*, the story of his climbing career, which is characterized by some of the finest writing on mountaineering to be found in the English language. Not only is the suspense well maintained but the absence of clichés and the unexpectedness of the imagery in his descriptions make the book a delight to read and a model to study. Young was also known for his poems, many on alpine subjects, which appeared in the three books, *Wind and Hill*, *Freedom*, and *April and Rain*.

Although the early twenties marked the peak of Young's literary activity they were also the time of his active experimentation in climbing with a wooden leg. By 1927, at the age of 51, he felt himself sufficiently experienced to try his old friends the Alps once more and he climbed Monte Rosa, followed the next year by the Wellenkuppe and the Matterhorn. He continued these ascents with others until the climb of the Zinal Rothorn in 1935, his last big peak. An account of these climbs is given in his book *Mountains with a Difference*, published in 1952, with an interesting analysis of the loss of balance and speed suffered by a one-legged climber.

Mountaineering has lost one of its most lucid proponents in the death of Geoffrey Winthrop Young, but his books will carry the freshness of his vision to climbers everywhere.

KENNETH A. HENDERSON

VARIOUS NOTES

Members and friends of the Club are urged to contribute items and pictures along the lines of Club interests suitable for inclusion under this heading. Material for the June issue should be received not later than March 1, 1959. All copy should be typewritten, double-spaced.

ALPINA

The American Karakoram Expedition of 1958 was successful in making the first ascent of Gasherbrum I (Hidden Peak). The expedition consisted of Nicholas B. Clinch, director, Peter K. Schoening, leader, Richard K. Irvin, Andrew J. Kauffman, Thomas McCormack, Dr. Thomas O. Nevison, Gilbert J. Roberts, and Robert L. Swift. Hidden Peak (26,470 ft.) is the first 8000-meter peak (8068 m.) to be climbed by an American party. (Gasherbrum I is said to have been named "Hidden Peak" by Sir Martin Conway. Actually a part of the summit is visible from the lower Baltoro Glacier. According to Balti natives, Gasherbrum means "Beautiful Mountain".)

The expedition, which also included two Pakistani Army officers and six Balti high-altitude porters, left Skardu on May 21 and established a temporary base camp on the upper Baltoro by June 10. Later in the season it was possible to advance the base camp several miles farther. After several days' reconnaissance of the South Gasherbrum Glacier area, the members finally decided to attack the somewhat longer Ertl-Roche (south) ridge. Camp I was at 18,000 feet at the base of the ridge. A steep snow slope led to Camp II (ca. 21,000 feet). Above Camp II the arête was very narrow and corniced, culminating in a steep ice dome. Camp III, 22,000 feet, was at the top of this dome. Camp IV, the same altitude as Camp II, was at the junction of the ridge and the great snow "plateau" on Gasherbrum's south slope. Four days of bad weather were experienced at Camp IV, but on July 3 the party were able to establish Camp V at nearly 24,000 feet, in spite of the deep snow.

On the following day, July 4, Schoening and Kauffman climbed to a col at approximately 24,500 feet, across the cirque of Gasherbrum's west glacier, and finally ascended the summit pyramid, which was steep snow. They reached the summit at 3 p.m., after 10 hours. Open-circuit oxygen equipment was used above Camp V, and it is certain that such a long summit climb, in heavy snow, would have been impossible without the use of oxygen.

The support party, consisting of Swift, Clinch and Nevison, did not make a second attempt on the summit as planned, because of deteriorating weather conditions and radio reports of an approaching monsoon (which did not arrive). The American base camp was located within yards of that of the Italian Gasherbrum IV expedition, and approximately 5 miles from that of the Japanese Chogolisa expedition.

THOMAS O. NEVISON

The British-Pakistani Forces Expedition 1958, led by Capt. M. E. B. Banks, made the first ascent of Rakaposhi (25,550 ft.) in the Karakoram,

via the S.W. spur. On June 25, in five hours of steady going from Camp VI (24,000 ft.) Banks and P. P. Patey gained the summit ridge and scrambled along it to the highest point, from which they could look down on the tiny state of Hunza. There was much wind and drift, and the climbers began to lose sensation in fingers and toes. They returned, exhausted, to Camp VI, where they spent the night, and continued down next day in bad weather. For a while they were prevented by cloud from finding their way down through the crevasses to Camp V, but as they were on the point of bedding down for the night in one of the crevasses a clearing revealed the camp below them. They found the camp abandoned, and continued to Camp IV, where they were welcomed by the support party. The whole expedition evacuated without casualty, and Patey successfully treated his own fingers for frostbite.

The Minapin Karakoram Expedition 1958 ended in tragedy when two members were lost. The leader, E. G. C. Warr, and F. C. Hoyte had pitched Camp IV at 21,500 feet, and on July 7 set out for the summit of Minapin (23,800 ft.). The other two members of the expedition, D. Kemp and W. Sharpley, who were bringing up extra food from Camp III to Camp IV, saw them making steady progress until 11 a.m., when a storm arose and hid them from view. At 3 p.m. the victualing party returned to Camp III as the storm cleared, revealing the summit of the mountain but not the climbers. Kemp and Sharpley returned to Camp IV the next day, to find it empty; so they went on to the mountain, where they found only ascending tracks. They returned to the mountain again the following day, climbing to 22,500 feet, whence they had an uninterrupted view of the top but with no sign of the missing climbers. Dangerous soft snow forced them to return to Camp IV, and after two more days the search was abandoned and the surviving members returned.

The Women's Overland Himalayan Expedition 1958, consisting of wives of members of the Rakaposhi expedition, with Mrs. L. W. Davies as leader, drove in a Land Rover from England to Delhi in forty-two days, without a single puncture and with only one involuntary stop (due to a blocked fuel line, in the Great Salt Desert of S.E. Iran). In Delhi they had an interview with Pandit Nehru and obtained permission to cross the Inner Line. They drove to Manali, where they engaged Ladakhi porters and mule transport, and left via the Rohtang Pass for Lahul and the old trade route for the Bara Lacha La (16,047 ft.) and on into Zaskar by the Phirtse La (18,000 ft.) to the legendary fortified village of Padam, capital of Zaskar. They climbed a peak of 18,700 feet near the Phirtse La from a camp about 500 feet below the summit, and in spite of sickness all four women reached the summit, at 7.30 a.m. In Zaskar they received a remarkable welcome, as no white woman had ever been seen there before.

The Chamba-Lahul Expedition, consisting of Hamish McArthur (leader) and Mrs. McArthur, Frank and Mrs. Solari, Emile Bayle and Margaret Munro, set out from Manali at the head of the Kulu valley on July 24 for the Thirot Nala, a tributary of the Chandra-Bhaga River on the western borders of Lahul. This *nala* is one of several draining southwards from the Great Himalayan Range which here runs at about 20,000 feet. Eight days' march brought us to Base Camp at about 13,500

feet near the snouts of a number of glaciers falling from the head of the *nala*. An easy way was found around two icefalls to a col at about 17,500 feet on the watershed. Camp III was established here, and one major and two minor peaks were climbed by various members of the party. The glacier to the north and east of the col was traversed to set up Camp IV at about 18,000 feet, beneath an extensive mountain believed to be over 20,000 feet. On August 14 Emile and the Sherpa Da Temba made an early start from Camp IV for the summit, while Hamish, Margaret and I started later with three Ladakhis to set up Camp V on a shoulder on the ridge at about 19,000 feet, for an attack on the summit the following day. We reached the intended campsite at 11.30 to meet Emile and Da Temba returning, having been defeated by the ice conditions higher up. We all turned back. On the descent Hamish was taken ill and had to be helped back to Camp IV, where he seemed to recover and went to bed in good spirits. Shortly after 5 a.m. on the 15th he suffered violent convulsions and lapsed into a coma, from which he did not recover. Da Temba ingeniously contrived a sledge out of a tent and we hauled him across the glacier, over the col at Camp III and down into the Thirot Nala, but it was clear by nightfall that he was no longer alive. He was buried next morning near the foot of a terminal moraine about an hour above Base Camp. Our melancholy return was interrupted by a detour to Kyelang to report to the police and to dispatch signals from the radio-telegraph station there. We returned to Manali on August 23.

The mountains of the Thirot Nala are of a higher order of difficulty than those we encountered farther east in 1955 (APPALACHIA, December, 1956), and many of them would provide splendid climbing. The glacier beyond the col seems to be merely part of an extensive glacier system draining into the Bara Nala—which is, at present, inaccessible. The mountains to the south and east of us were very fine indeed, with much snow and ice—and all beyond the limit of the 1921 survey and so not shown on the existing Survey of India map.

Hamish McArthur will be remembered by the members of the A.M.C. 1952 walking trip to the Lake District (APPALACHIA, December, 1952), whom he and his wife entertained at tea at their home in Richmond after a visit to Hampton Court. Emile Bayle will similarly be remembered by several members of the New York Chapter for his participation in the Chapter's activities shortly after the end of the last war, when I myself had the good fortune to make his acquaintance.

FRANK SOLARI

The Austrian, Italian and Japanese Karakoram Expeditions of 1958 were all successful in attaining their objectives, early in August. The first climbed Haramosh (24,270 ft.); the second, Gasherbrum IV (26,000 ft.); and the third, Chogolisa (25,110 ft.). This last is Conway's "Bride Peak", on which the Duke of the Abruzzi in 1909 reached an altitude of 24,600 feet, which remained a record for many years. On this peak Hermann Buhl was killed in 1957.

The Swiss Dhaulagiri Expedition was obliged to turn back at the end of May, about 2000 feet below the summit (26,795 ft.), because of the outbreak of the monsoon.

KENNETH A. HENDERSON

The British Caucasus Expedition 1958 consisted of Sir John Hunt, as leader, with eight other climbers. They left England on June 25 and traveled by road to the Russian frontier, thence by road and train to Moscow, where they were given an enthusiastic welcome by the Soviet mountaineering organization. They flew to the Caucasus, where the first two weeks were spent at the Spartak camp in the Ushba area. They first climbed Kafkaf (approx. 13,400 ft.) and then attempted Ushba (15,409 ft.), but were defeated by bad weather on the plateau. As consolation they obtained Pik Shchurovsky, and then moved to the Bezingi area. Here they divided into groups. One party attempted Jangitau, taking four bivouacs, but were defeated by avalanche conditions when within 400 feet of the summit. Another party climbed Shkhara (17,004 ft.), taking five bivouacs. Both of these were believed to be second ascents. Yet another party climbed Gestolla, and after a rest period two ropes climbed Dykhtau (17,049 ft.) by a new route up the S.E. buttress—a major expedition of five days. Others attempted Dykhtau by the Mummery Route, but were defeated by the conditions and the sickness of one member of the party. Throughout, the British climbers were entertained by Russian climbers who joined in most of the climbs, and much of the success of the expedition was due to the work of the Russian Eugene Gippenreuter. According to the *London Times*, when the party of nine British climbers and eight Russians, one of them a girl, were snowbound for three days and nights in their high camp on Ushba, one Englishman, George Band, played chess with a Russian, Anatoli Kustovsky, while Sir John Hunt read poetry to Gippenreuter over cups of tea and hunks of raw fish.

FRANK SOLARI

Antarctic exploration will continue, even though the International Geophysical Year is scheduled to end on December 31. The United States plans to reduce its activity to some extent and has suggested giving its Ellsworth Station to Argentina and the Wilkes Station to Australia. A tractor party plan to leave the Ellsworth base for a crossing of the Antarctic continent during the next Antarctic summer. This party will make seismic soundings along their course in order to check on the possibility that West Antarctica is divided from the main mass of the continent by a trough below sea-level. While complete reports are not in yet, it is thought that this past winter may have produced a record cold, as a temperature of minus 108.6 F. was reported by the Russian base at Mirny very early in the winter, and extremely high winds were reported at other bases.

KENNETH A. HENDERSON

Mt. McKinley was climbed by two groups this summer. One group of six who had planned to ascend by the Pioneer Ridge route changed their plans when they found from aerial photographs that the ice conditions on the Muldrow Glacier were very bad, and flew in to the Ruth Glacier to attempt the southeast spur of the South Buttress. After two weeks' work they were stopped by an ice tower on a highly corniced ridge and retreated to try again by the West Buttress, being flown in to the Kahiltna Glacier. From a 17,000-foot camp the party reached the

south summit on July 2 and two members went on to climb the north summit. The same day another party of four also reached the south summit. [See note below by Clarence E. LeBell.—Ed.]

Mt. Blackburn (16,140 ft.) in Alaska was ascended, for the first time since Dora Keen Handy's climb in 1912, by a party of five composed of Leon Blumer, Bruce Gilbert, Dick Wahlstrom, Hans Gmoser and Adolf Bitterlich. They flew in to the mountain on May 20 and attempted the east ridge. At 14,000 feet they judged the knife-edge ridge from there on to the summit to be too dangerous in the poor weather conditions which they had been experiencing, so retreated and skied around the mountain to the northwest ridge, which they followed to the summit.

Mt. Fairweather (15,300 ft.) on the Alaska-British Columbia boundary was climbed for the first time since its first ascent in 1931 by Allen Carpe and Terris Moore. A party of eight climbers consisting of Paddy Sherman, Fips Broda, Dennis Moore, Dave Blair, Walter Romanes, Paul Binkert, Joe Hutton, and Russell Yard reached the summit in two groups on June 26 and 27. While in the region, Broda and Romanes climbed a 10,400-foot peak and the balance of the party ascended Mt. Lituya to within 200 feet of the top.

KENNETH A. HENDERSON

International Mt. McKinley Expedition 1958. (F. E. Cooper, Tuxedo Park, N. Y., leader; R. Elliott, Anchorage; M. Mushkin, Fairbanks; B. Gilbert, Yakima, Wash.; F. O'Connor, Vancouver; C. E. LeBell, Peabody, Mass.; with K. Hart, Girdwood, Alaska, as standby leader.)

The route taken was similar to that pioneered by Bradford Washburn in 1951.

From Talkeetna Don Sheldon, a very capable bush pilot, ferried us in to the mountain one at a time (plus equipment), skirting muskeg and moose and skimming through very narrow passes. Base Camp was established at the ski-plane landing on Kahiltna Glacier at 7200 feet.

Doing considerable back-packing and falling into a few crevasses, we proceeded up the Kahiltna Glacier. An aluminum sled was used for about 4 miles and then left as the going got steeper.

At Camp II we had a bit of a storm, which tore our Logan-type tent into a useless mess. This left us one two-man mountaineering tent—which was quite often three-man!

Camp III was near Kahiltna Pass, at about 10,100 feet. Four men had gone ahead to it. Marty Mushkin and I, coming up later, shortly found ourselves in a white-out. Advance was possible only from wand to wand, and the finding of each new wand was an event. When we arrived at Camp III we saw only ice-axes and skis stuck in the snow. Where were our fellow-climbers? The answer we got was a muffled yell from directly under our snowshoes: "Get off the roof!" They had built themselves a snow-cave.

Next day we climbed over more crevasses and a bergschrund. At 12,000 feet we rested on a ridge and got our first good view to the north, showing the N.W. Buttress and, far below, Peter's Glacier. At Camp IV, on Windy Corner (13,200 ft.), a cache of medical supplies, a large Colman stove, sleeping-bags and some other objects left by Bradford Wash-

burn and the Denver group seven years before, were found, frozen solid. Here we built our first igloo.

Before us the West Buttress extended upward 3000 feet. Faced with broken rock mixed with ice and snow, it presented many challenging routes. At Camp V (bivouac) we found that the Crow's Nest route was hard ice. To reduce step-cutting we laid our course about 1,000 yards west of Brad's route, over a bergschrund and some glare ice, onto rocks somewhat precariously attached to the wall. Using great effort we managed to advance upward, with our impedimenta, at the rate of about 100 yards per hour. We knew exactly how Hannibal must have labored in the Alps with his elephants! We decided to tie onto our ice-axes and bivouac on a narrow rock lip. At this time it started snowing.

Climbing rock, ice and snow we finally got to the crest of the West Buttress ridge (17,200 ft.) and here made Camp VI. As the wind and snow picked up we built two small ice-caves on the ridge, to avoid the chance of losing the tent. On this climb we used ice-pitons of the Dave Bernay model with great success. I had made ten of them from a sample.

High Camp (VII) was an igloo on the plateau, 900 feet below Denali Pass. On July 1 we climbed up through Denali Pass, over snow broken by some rock ribs. After a hasty lunch we ascended a very easy slope of hard snow toward the South Peak. Gradually the mist closed in, becoming a white-out. We were forced to break the bamboo wands into three pieces each, as we were getting low. Continuing by compass, we got to a point where everything sloped downward and, with visibility limited to 100 yards, we decided that we were on top. We had a short celebration, put up American and Alaskan flags, had a prayer, and descended to High Camp.

To our surprise, we found that we had been joined by Dave Dingman's six-man group. They had attempted the south face of the South Peak several days earlier, but after getting to 14,000 feet they decided that the continued Class VI climbing was not expedition stuff.

Capt. Hackett, of their group, thought that we had missed the summit, as a bamboo pole had been left upright in the snow in 1951. As the next day, July 2, turned out to be perfect, both groups took off for the top. (I did not go because of an injured foot, which would have delayed the rest, and another climber sacrificed his chance in order to remain with me.) That day ten climbers planted the Alaskan flag on the summit of North America. Our false summit of the previous day turned out to be 800 feet lower. As the weather was so fine, Dave Dingman and Dave Dorman went on the same day to climb the North Peak, in their shirt sleeves.

CLARENCE E. LeBELL

Climbs in the Mt. McKinley Range, Alaska. A year ago we were intrigued by glimpses of the sharp, white peaks of the yet untrodden region around the north fork of the Eldridge Glacier, which descends from Mt. Mather about 25 miles northeast of Mt. McKinley. Spectacular ice spires rose above dazzling fluted slopes and hanging glaciers. Though lower in altitude, it was much more beautiful than the other parts I had seen of the McKinley Range. We returned this year, nine strong,

with elaborate plans for glaciology, geology and climbing everything in sight. We did the scientific work; the weather revised our climbing plans.

On June 22 Don Sheldon of Talkeetna flew in his ski-wheeled Piper Super Cub to the glacier, close to the National Park boundary. Except for me, the group was young, being on the average only nineteen years old. We were Harold Janeway, Barry Morgan, George Erlanger, Doug Bingham, Bill Loomis, Dave Helprin, Sandy Weld, Freddie Churchill and I. Glaciology and packing camp towards the head of the glacier occupied us during the first week. On July 1 we ascended the glacier to its very head. From a col at the foot of Mather's northeast ridge we turned our backs on that mountain and followed a knife-edged ice ridge toward the summit of the adjacent 10,400-foot peak which we had nearly climbed last year from the Muldrow Glacier side. On the last 250 feet the ridge steepened even more sharply, forcing us to dust off both our ice pitons and our ice technique.

Glaciology occupied the next few glorious days and it was not until July 6 that we made our second and last first ascent, that of a sharp peak, about 9000 feet high, halfway between Mt. Mather and Anderson Pass, the second mountain southwest of Peak 8620. We ascended an icefall north of camp to reach a small glacial valley and thence the southern knife-edged ridge of our peak. The final pitch here was extremely steep and the summit itself was a point of ice just big enough for one of us at a time. The next day we quit on Mt. Mather at 11,000 feet, still about 1000 feet from the summit, since strong, gusty winds threatened to blow us off the steep northeast ridge. That ended our climbing. The weather turned so foul that by July 24 it had broken the all-time precipitation record for the month of July in Anchorage. We got more than our share in the form of snow, sleet, rain, wind and fog. From July 8 to July 26 we saw the sun only three times. These scattered moments were enough to finish the scientific work but were hardly suitable for climbing. On July 26 Don Sheldon played hide-and-seek with the clouds to fly us out.

ADAMS CARTER

Climbs in the Brooks Range, Alaska. Within the structure of the International Geophysical Year program, an intensive scientific study has been made of the McCall Glacier, Brooks Range, Alaska. This glacier, named for the late Dr. John McCall who lost his life on Mt. McKinley, is located about 60 miles south of Barter Island on the Arctic Ocean and drains a massif of high peaks approximately 15 miles east of Mt. Michelson. (*A.A.J.*, Vol. XI, No. 1, 1958, pp. 93-95.) An I.G.Y. glaciological station was established in an upper cirque of the glacier in March, 1957, and manned by a team of four scientists until September, 1958.

During their occupancy of the station members of this team made a number of first ascents of minor and major peaks, of which the following are especially noteworthy:

Mt. McVicar (8760 ft.), June 15, 1957, by R. C. Hubley and Robt. W. Mason.

Mt. Hubley (8915 ft.), May 24, 1958, by R. W. Mason, C. M. Keeler and Austin Post.

Mt. Arey (9000 ft.), July 18, 1958, by Austin Post (solo).

Mt. Leffingwell (9050 ft.), July 19, 1958, by R. W. Mason, C. M. Keeler and Austin Post.

Mt. Michelson (8855 ft.), second ascent, Sept. 7, 1957, by Robt. W. Mason and Charles M. Keeler.

The names applied to these summits, with the exception of Mt. Michelson, are those given by the climbers themselves and are subject to confirmation by appropriate authority. The elevations, however, are those resulting from 1957 surveys. Thus Mt. Michelson, formerly considered to be the highest peak in Alaska north of the Yukon River, is relegated to fourth place and "Mt. Leffingwell" becomes the king of the Brooks Range.

WALTER A. WOOD

Director, Brooks Range Glaciological Project, I.G.Y.

In the Bugaboos. In the middle of July, 1958, Bill Buckingham, Arnold Guess, Bob Page and I set up camp at the foot of the moraine above Boulder Camp in the Bugaboos, in British Columbia. Favored by almost perfect weather we climbed Bugaboo, Pigeon, Snowpatch, Marmolata, Howser Peak, Thimble Peak, N. Howser Spire and several of the smaller, less difficult peaks.

The climax of the trip was the first ascent of the north summit of Snowpatch, by Bill's route on the N.W. side of the mountain. Bill and Bob spent two separate efforts in preparing the route and completing the ascent, which was repeated by Arnold and me in one day, following their successful efforts. The route is largely 4th class, but involves one long stretch of 6th class in a very formidable gap near the top.

Bill and Bob also did the 2nd ascent of Center Peak in the Vowell Group, and they, with Arnold, did a traverse of the Wallace-Kelvin ridge (2nd ascents) to two newly-climbed spires, Snaffelhound Spire and Spear Spire, which lie toward the north of Kelvin. This traverse of four peaks took fifteen hours.

EARLE R. WHIPPLE

In the Wind River Range of Wyoming a number of new ascents were made in the middle of August from the camp of the Iowa Mountaineers at Lonesome Lake. The towers on the divide between Lonesome Lake and Shadow Lake were all climbed on the E. From the col between the Overhanging Tower and the Wolf's Jaw, routes were made up both of these. From the same col a traverse was made to the col between the Overhanging Tower and the Shark's Nose, and then around the Shark's Nose to the Block Tower, which was climbed by its W. face over very steep and rotten rock. Descent was by roping down the E. face and S.E. corner.

KENNETH A. HENDERSON

A new variation on the Brouillard Ridge, Mont Blanc, was made on August 13 by Fritz H. Wiessner and the Courmayeur guide Eugene Bron. The variation begins in the couloir which leads from the Glacier du Mont Blanc to the Col Emile Rey at a point approximately 1200

feet above its foot. The new route here leads out of the couloir and steeply upward to the right over a snow-and-ice slope which becomes rocky after about 100 feet, and after another rope-length ends under the vertical S.W. rock wall of Mont Brouillard. From there a traverse leads to the left around a corner and then straight upward over sometimes very difficult rocks; after about 250 feet, easier rocks are reached which soon lead to the highest point of Mont Brouillard. The new variation out of the couloir was very exciting and interesting, but being difficult added an extra 3 hours to the total of the normal time needed for the route.

We started our climb from the Quintino Sella Hut at 2 a.m. From Mont Brouillard we continued along the regular Brouillard Ridge route, crossing the Pic Luigi Amedeo and Mont Blanc de Courmayeur to the summit of Mont Blanc. We went down over the Dome de Goûter to the hut on the Aiguille de Goûter, which we reached at 7.45 p.m. This traverse was the high point of my season in the Alps.

FRITZ H. WIESSNER

Visit with Gino Solda. Highlight of this summer, for me, was the visit with my old friend Gino Soldà. When I called him in Recoaro (for once the telephone from Cortina really worked), it was the first time I had talked to him in more than six years.

I had meanwhile learned that he had given up guiding and I had originally planned just to see him and his family. Gino had in fact given up guiding at the insistence of his wife. She felt that she had had enough sorrow and worries during the war, when he was leader of a group of partisans for several years, and that she had worried enough while he was making his various first ascents and when he participated in the Italian K2 expedition. However, Gino still continued to climb for fun.

I met Gino on the steep road to Campo Grosso hut, where he had just been to take some pictures and where I wanted to pick him up with my little Volkswagen. We both jumped out of the cars and were equally happy to see one another again. Gino had put on some weight and confessed that he had not been on the rocks seriously for quite some time.

After a very pleasant dinner at Gino's home, with his lovely family, we agreed to spend most of the time in the Recoaro mountains. This area is not well known and we could, therefore, count on staying by ourselves. In these days the crowds in the Dolomites are concentrated on roads, huts and the rocks of well-known or famous climbs. The less known ones, regardless of their beauty or difficulty, remain free for the few who are interested in the mountain rather than in the sport.

Gino is of course a real celebrity in his home area, constantly surrounded by autograph-seeking crowds. I had a good laugh at him and told him it was much more comfortable to be an unknown citizen. But soon I, too, was surrounded by the same crowds, after *my* autograph. I never found out what Gino had told them about me, but he had a very good time at my expense.

As the days went by, Gino lost that little excess weight he had accumulated, and from the start he showed his old admirable form and technique on difficult rock. On the last day in Recoaro Gino suggested

that we do something really difficult—the south face of the Punta Emmele, which he had climbed many years ago and which climb had still not been repeated. Gino could not understand why and wanted to look at the climb once more for himself.

As we tied on to the double ropes and put our stirrups in order, we looked up to the 250 meters of overhanging yellow rock. I felt that pressure in my throat that so many of us feel when we approach something that looks “impossible”.

Gino led up an extremely difficult free pitch. When I followed him, I felt every inch of the way how close this came to the limit of what I can climb. Then followed artificial pitches with loose rock and unsteady pitons, with meters of free climbing in between which made the stirrups and pitons feel like comfortable home bases. At one point a piton gave and Gino took a fall to the next anchor, but he proceeded without much delay. It was very hot and we were quite thirsty and welcomed fog and finally sunset when we reached the peak. We rested, wound up our ropes, and Gino looked very tired and extremely happy. I felt very much that way myself. Little was spoken, but Gino said that he felt as though he had taken a good strong and cleansing bath. It seemed to him that anybody who had had this experience once in his life, had to come back for more as long as he could. I agree.

HANS KRAUS

The north wall of the Grosse Zinne in the Dolomites was climbed last July by a new route, a so-called *via direttissima* along the direct fall-line from the summit. The four Germans who made the climb spent $4\frac{1}{2}$ days on the 1800-foot wall, put in 180 pitons and drilled 14 holes for bolts. Reports in Italian newspapers that battery-driven drills were employed are indignantly denied on the German side.

In September, two of the same Germans made another Dolomite first ascent of similar character, that of the Rotwand (Red Wall) in the Rosengarten, described as quite markedly overhanging. They took 4 days, with 3 bivouacs. On these bivouacs they were obliged to hang in the rope from pitons, having no places to stand, let alone sit down.

Eiger North Wall. Writing in *Der Bergsteiger* for August of this year Dr. Gustav Renker gives an interesting short history of this fearsome climb, which we further condense in free translation as follows.

It is now twenty years since the first ascent was made. In the three years preceding it, 1935-8, nine climbers perished in unsuccessful attempts; then, in July 1938, a party of four—two Bavarians and two Austrians—managed to get up, requiring four days and three bivouacs. One of the most remarkable feats of mountaineering had been accomplished, and now it was hoped, not only in Grindelwald but in the widest climbing circles, that the regrettable excitement over the wall would subside and activity in connection with it would cease. And so indeed it happened for a number of years, for now came the Second World War.

Yet in spite of its first ascent the wall remained a problem—and it still does, after twenty years. For here no calculation with known quantities is possible, since the wall is constantly changing its aspect. Everything about it is always new and unexpected; today one can encounter difficulties where last year a party got through relatively easily, and

vice versa. The climb will always remain a toss-up between life and death. The objective dangers—those from falling stones and avalanches—are magnified enormously. One who examines it from a distance can see that the wall is almost ceaselessly alive in this fashion; only in winter, when the cold binds up the avalanches and the stones, does it become still.

For nine years the wall remained untouched, until 1947. Then two Frenchmen climbed it, and three weeks later three Swiss, these latter in the shortest time yet required (two days). Three years later there occurred the most brilliant feat in its history: it was climbed throughout in a single day, in one long pull of exactly nineteen hours, by two Austrians. At the very same time some more Swiss, four of them, were making a successful climb, taking three days; they were caught up and passed by the Austrians. The curse which had been laid upon the terrible wall seemed to have been broken. In 1952 there were no fewer than five successful ascents, the last two of which involved as many as nine men, among them the élite of European climbers—two Austrians, three French, and others. Had the wall lost its frightfulness, had its dangers become diminished by reason of these successful ascents? One might have thought so, until it was learned that, at the same time as these prominent alpinists, there were on the wall two young Germans, quite inadequately equipped and with utterly insufficient clothing. Undoubtedly they would have succumbed in their ill-considered venture, if the others, especially the French climbers, had not taken charge of them, placed them in the middle during the second bivouac, and thus saved them from freezing to death.

People began to look upon the Eiger wall with less respect than before. Up into 1953 no fewer than fourteen ascents had been crowned with success. Moreover, elsewhere in the Alps walls had been forced which were supposed to be more difficult than that of the Eiger, which thus seemed to have lost its aura as the most difficult climb in the Alps. From the technical standpoint this may indeed have been the case. The northeast wall of Piz Badile, the Walker Buttress of the Grandes Jorasses, and especially the west wall of the Aiguille du Dru (described by the Frenchman Magnone, one of its conquerors, as a staircase in reverse, consisting of nothing but overhangs), make higher technical demands, requiring more complicated methods of finesse and greater refinements in the way of artificial aids. On the Eiger wall only two passages attain the sixth and highest grade of difficulty, whereas the three climbs mentioned consist almost entirely of such passages. But one unique character the Eiger wall had, and this remained despite the successful climbs of 1947 to 1953, namely, that of being the *most dangerous* climb in the entire Alps.

And the demon of the wall was not asleep. In 1953, after the fourteenth successful ascent, he struck, and that twice in this same year. First, two Germans were his victims, and then one of the best Swiss climbers, together with another German. From that time on, to the time of writing, there have been no more successful ascents, but in 1956 two Germans perished and a year later there occurred the great tragedy which still lives in everyone's memory—that of two Germans and one Italian, while a second Italian was finally saved by an international

team of devoted rescuers using the most modern form of rescue apparatus.¹

The score to date, twenty years after the first ascent, is frightening: fourteen parties have come through safely while eight, consisting of eighteen persons, have paid for the attempt with their lives. And this will not end the matter. The wall has an uncanny attraction which is beyond understanding and yet seems to be irresistible to young men who are bent on the most difficult and daring feats and who want to win their lives anew from the midst of manifold danger.

ROBERT L. M. UNDERHILL

Miscellany. Belgrade newspapers of September 17 reported that Miss Fanny S. Copeland, a retired schoolteacher of 88, born in Scotland, had climbed Triglav (9400 ft.), the highest mountain in Yugoslavia, in fourteen hours.

The aluminum statue of the Virgin Mary which has stood on the summit of the Dent du Géant for fifty-four years has been swept off the peak by a storm and buried in the snow of the Mer de Glace on the northern side of the Mont Blanc massif.

The Swiss and Italian governments have concluded an agreement relating to the construction of a road tunnel beneath the Great St. Bernard. This is intended to be complementary to the road tunnel beneath Mont Blanc projected by the French and Italian governments.

Both the Simplon Railway and the motor road were badly blocked by heavy landslides which came down after torrential rain in August. Thirteen persons were reported dead, while a car containing four French tourists came through only a few minutes before a slide swept down.

WINTER CLIMBING

High Camps in Huntington Ravine. There was so much snow and so little ice in Huntington Ravine last winter that one March party was able to climb all the ice pitches in both North and Damnation Gullies and return to the ravine floor in five hours. As a result of these conditions mountaineers often substituted hiking and camping for technical climbs. One day Mike Wortis hit upon the original idea of establishing a camp in the middle of Pinnacle Gully. For a time we laughed heartily, but Mike was serious, and he talked Leif Patterson and me into joining him. On March 29, after helping to install the new stove in the Harvard Mountaineering Club cabin, we three set off with packs that included two nights' food, cooking equipment, sleeping-bags and Earle Whipple's mountain tent. We found the first pitch of the gully much as usual—steep and icy—but made more difficult by the need to haul up packs. The rest of the route, however, included only about a hundred feet of ice. Halfway up we dug a platform in the snow-slope and set up the tent. The night was comfortable, despite the powder snow that swept down the gully, and we woke just in time to see the sun leave our campsite for the day—it was 7.15 a.m. We completed the climb, then went down into the ravine and returned to the

¹ It is reported that the wall was again climbed last summer.

Alpine Garden via Central Gully. Accompanied by George Millikan, we spent the night there in a hastily constructed igloo. This edifice melted a little during supper, but there was enough left to give shelter. We recommend igloos highly but fear they are impractical to build in Pinnacle Gully.

STEVEN JERVIS

ROCK CLIMBING

New Climbs on Cathedral and White Horse Ledges. Two new routes have recently been established on Cathedral Ledge in Echo Lake State Park, North Conway. One of the new routes is to the left of the regular route. This new route begins quite close to the prominent crack to the left of the regular route and works from left to right across the face. At one point there is a very long traverse across the face where two expansion bolts had to be placed because of the absence of piton cracks. At the end of this long traverse the route goes almost straight up and involves some delicate and difficult climbing. Ray D'Arcy (leading) and Fran Coffin made the first ascent in July, 1955. The ascent has been repeated on one or two occasions. No direct aid was utilized, but expansion bolts are necessary for security.

In June, 1958, John Turner and Art Gran put a route to the right of the regular route. It is understood that it is the largest crack to the right of the regular route. The crack itself is the route of ascent and from the description and comments from John Turner it appears to be a very difficult route. [See note immediately following.]

A relatively new variation in the traditional route on White Horse Ledge avoids the well-known "Brown Spot" and "Boiler Plate" by traversing 25 feet above, across super-smooth slab. The climber then finds himself on a point higher than customary on the first mantel shelf. This alternative is extremely delicate. It is not an easy matter to retreat, once a leader commits himself to this traverse.

In order to determine the popularity of rock climbing in New England, cairns have been built and a register left on some routes, including the following: Whitney-Gilman on Cannon Mountain, Pinnacle on Mt. Washington, White Horse Ledge and Cathedral Ledge, North Conway, and Mt. Willard in Crawford Notch. At some time in the future this statistical data will be published in APPALACHIA.

JOHN E. TAYLOR, *Member, A.M.C. Rock Climbing Committee*

Second New Route on Cathedral Ledge. This climb was made on June 29, 1958, by Art Gran (A.M.C., New York) and J. M. Turner (Canadian Mountain Club, Montreal); the lead was shared. The climb, which was named "Repentance", follows an obvious dike some 400 feet to the right of the usual route.

(1) (15 feet). Avoid the first overhang by climbing to a tree on the right.

(2) (90 feet). Traverse back into the dike on a shelf above the belay. Climb the shallow chimney above to a ledge and belay. (Two pitons for protection.)

(3) (70 feet). The pitch consists of a short chimney that narrows to a slightly overhanging crack. Climb the chimney until it is possible to

step right onto a loose piton behind a doubtful flake. (The use of this piton might perhaps be avoided.) The crack above is jammed strenuously, the climbing at this point being in the "free six" category. After about 15 feet a welcome rock spike is reached on the left, which affords both a rest and protection. The crack above leads to a second spike, and then to a belay ledge. (Two running slings for protection, one piton for aid.)

(4) (125 feet). The chimney above is followed until it opens out after about 90 feet. From a shelf on the left the face is climbed to a tree on top of a large flake. (Two pitons for protection.)

(5) (110 feet). Climb 10 feet above the tree, then follow an ascending line to the right leading back into the dike, which at this point takes the form of a wide chimney, blocked at the top by a giant capstone. The capstone is climbed by a layback around its left edge, protection being afforded by an extremely long sling attached to a chockstone concealed in the recesses beneath. (One piton and one sling for protection.)

An easy scramble leads from the capstone to the top of the cliff.

J. M. TURNER

CLIMBING IN GENERAL

Swan's Traverse came into being as a joke, but it is no joke to anyone who does it, as the few who have tried it, to my knowledge, can testify. It originated one night at Madison Hut, in 1953 or 1954. I had been remarking on the way some hikers paid absolutely no attention to the contour lines on the guidebook maps, and to show how serious this oversight could be, I set out to devise a route from the Ravine House to Pinkham Notch Camp that was reasonably direct and yet would go "over all the humps", utilizing notoriously hard trails. Fancy loops, to include especially tough sections of trail, were not indulged in, but two of the hardest headwalls—King Ravine and Great Gulf—were made parts of the route and a third steep trail, the Boott Spur Link, was thrown in for good measure. The descending trails were also chosen as the most difficult of those lying along the general line of the route.

Doubtless more difficult traverses of a couple of peaks and ravines could be mapped. (For instance, Bowman to Pinkham Notch via the Castle Ravine, Gulfside, Jefferson Loop, Six Husbands and Great Gulf Trails, summit of Washington, Carriage Road, Huntington Ravine and Tuckerman Ravine Trails would be a worthy competitor, but it is not so long or so direct and it wanders more to take in steep sections.) I doubt, however, if any route of similar length, 13.32 miles, can be found in the Presidential Range which will combine the difficulties, both uphill and down, of this traverse. I think it will remain for some time the stiffest test of climbing skill and endurance that the Presidential Range can offer on a route between two main points.

We drew up an outline of the traverse, figured the guidebook times, the mileage, and the gain and loss in elevation and posted the route in the Madison Hut dining room. At the bottom was the acidulous butt of the joke, an offer of a free season's pass to the Star Lake Bathing Beach to anyone successfully completing the route in a single session. (There was also an honest declaration that Swan had never *done* this traverse; he had only thought it up.)

One notice dried up and crumbled of old age without any takers, and a new, simplified notice was posted. Not until the summer of 1958 did I have to write out a free season's pass to the Star Lake Bathing Beach. The proud possessor of that first pass—at least, he should be proud—is Jim O'Kane, the hutmaster at Madison this past season. The pass was issued by me at Pinkham Notch on July 30, the day Jim O'Kane did the traverse in 5 hours, 22 minutes. He was, to my knowledge, the first man to try it. (Incidentally, he warmed up for the job by dropping down the Valley Way from Madison to the Ravine House that morning.)

Another pass was issued a few weeks later to Christopher Goetze, who did the traverse in 4 hours, 59 minutes, or 23 minutes less. Subsequently Chris hacked 27 minutes more off that record, and the best time for Swan's Traverse now stands at 4 hours, 32 minutes.¹ The guidebook time, incidentally, is a flat 13 hours.

BRADFORD F. SWAN

"A.M.C. 4000-Footer Club Spurs Climbers." These words headlined an article in the Boston *Evening Globe* of Tuesday, September 23, 1958. The headline is right, too, because everywhere I walked this past summer in the White Mountains individuals and groups were striving to reach summits that were listed in the June, 1958, issue of APPALACHIA. Within one half-hour, on the Labor Day weekend, three separate groups were probing in the woods for the true summit of the Zealand Ridge! To find this summit proceed north into the scrub growth just before the Twinway drops into the col on its way to Guyot. Stay on the left side of the barely perceptible ridge and walk in about 100 yards. Make your way to what seems to be the ridge and look for a "Zealand Mountain" sign on a tree, nailed so that it faces northwest. This sign was made and placed by Herbert Preble of Winchester, Mass. A little farther to the north the "U" tree, a well-carved scrub pine, may be found. Mr. Preble has also placed his neat signs on Cabot and Tom. Next year he is planning to place signs on Hancock, South Hancock, Owl's Head and West Bond, thereby also becoming a member of the 4000-Footer Club. I am delighted to see so many people getting around to places they have never been before, but more important is the fact that trailless peaks are providing the members and friends of the A.M.C. with a really satisfying challenge to their strength and resourcefulness. Just for the record, be properly equipped with a little extra clothing and food, a compass, an A.M.C. *Guide*, a U.S.G.S. map, a first-aid kit, flashlight and matches. And this is very important: do not be too proud to turn back in foul weather.

The new members of the 4000-Footer Club are: Daniel Baker, Marjorie Merrill, Kenneth Turner, Milton "Red Mac" MacGregor (age 74, by the way), Josephine A. Hope, Charles S. Linscott, Lilian K. Birrell, Alice Lemaire and Doris G. Fellows. Scrolls will be presented to new members at the annual meeting on January 9, 1959.

ALBERT S. ROBERTSON

¹ See the article by Klaus Goetze, "Far and Fast", in this issue, where the route is given in detail.—ED.

SKIING

In the Home of the Giants. The mountains of Norway are not high by comparison with their famous neighbors to the south, but they have strong attractions of their own. Turned loose in Belgium for a two-week vacation last March, Gail and I resisted the natural southward urge and embarked on an exploratory voyage in the opposite direction. Within a few days we found ourselves in a sno-cat, lurching up a snowy valley and bound for a place known as Leirvassbu, the "clay-water-hut". Belying its prosaic name, the "hut" proved to be a newly-remodeled mountain hotel, gaily decorated with traditional Norwegian designs and mottoes, the latter unfortunately not accompanied by English translations.

Jotunheimen, the "giants' home", is the central mountain range of Norway and the highest of northern Europe, and contains an impressive array of glacier-clad peaks. Leirvassbu is situated in the approximate center of the range at a height of 1405 meters (4610 feet). The possibilities for ski-touring are almost unlimited, and they were being taken full advantage of by the enthusiastic crowd of Scandinavians who were our fellow-guests. For us, whose limited skiing experience had been gained on packed, mechanized American resort slopes, the opportunities presented by these tremendous unbroken snow sweeps of mountain country were a revelation. We did our best to rise to the situation.

We soon found, in spite of the joys of ordinary ski-touring, that the old magnetism drew our attention toward the heights. We had been informed more than once that winter mountaineering in Jotunheimen was "not possible". It would be more accurate to say that it is seldom tried. Norwegians in general are not mountaineers. In spite of the efforts of the small but enthusiastic Norsk Tindeklub (Norwegian Summit Club), mountaineering in Norway appears to be almost exclusively a British preserve. Not unnaturally, the visiting cragsmen prefer to come in the summer, when conditions are most favorable.

Our expedition, with its climbing personnel limited to one fanatic and a loyal but sometimes less enthusiastic wife, did not score any history-making ascents. However, we did several very pleasant climbs, reaching the summits of Veslebjorn, Kyrkya, the three central peaks of the Tverbottinden, and Visbretinden. The latter rises to a height of 2235 meters (7330 feet), enough to put us up among the aristocrats of Jotunheimen, although well below the highest, the 2469-meter Galdhøppigen, which lies a few miles to the north. None of our climbs presents any real difficulties to mountaineers with proper equipment, although even in summer they must be a little tougher than the tourist excursions to Galdhøppigen.¹ At any rate, we found the going stimulating and the views magnificent. Our limited time was the only real obstacle.

Our feeling that we were leaving too soon was enhanced, just before our departure, by the arrival at Leirvassbu of a Swiss-German skiing instructor who communicated with the guests in English and sang to them in Spanish. He told us that he also spoke French, High German,

¹ See Miriam Underhill, "Norway's Highest", APPALACHIA XXXI, 251-252 (December, 1956).

Italian and Romanche, and we suspected him of coming to Norway mainly to add another language to the list.

RODERICK GOULD²

Those Swiss Helicopters Again. Indignation seems to be mounting among Swiss skiers in general over the use of helicopters and planes to bring a few to the high snowfields for the down-run. (See APPALACHIA for December, 1957, 528-9.) *Die Alpen* for July, 1958, quotes the account of a ski trip to the summit of the Titlis made on March 30 last by twenty members of the S.A.C. Section Bern. After four hours of climbing the party attained "the wonderful summit, flooded with sunlight. . . . We should have liked to linger there for hours, but we had to rush off and rescue our skis, which had been left stuck up in the snow on the little plateau between the twin summits, in order to make room for a helicopter which wished to land and was energetically demanding this after circling the summit three times. Hang it all, at no distant time we'll have to clear off every summit in this way!"

Vermont and New Hampshire Ski Developments. *Killington Peak* (4241 ft.) in central Vermont is the site of one of several brand-new ski developments in New England. Located at the junction of Routes 4 and 100, this new area has completed the first part of a three-phase program designed to make full use of the potentialities of Vermont's second highest peak.

Available for this season will be two Pomalifts in tandem, providing a 1165-foot vertical rise to the summit of Killington's northern ridge. While the slopes and trails serviced by the lower lift have been laid out with all classes of skiers in mind, the upper area, which is situated above the 3100-foot line, has been designed primarily for the novice and intermediate grades and should provide excellent post-season skiing. A third lift at the base will give beginners a separate area.

A 6000-foot-long cabin-car chairlift for both winter and summer use, climbing 1700 feet to the very summit of Killington, is included in the plans for future development. Coupled with a high-altitude lift on the mountain's upper slopes and a further lift on Skye Peak, Killington Basin will provide three mountain developments with a single base area.

One of the most outstanding characteristics of Killington is its exceptionally high base elevation of 2500 feet, which is the highest of any lift-served ski area east of the Rockies and 400 feet higher than any other New England development.

Fifty miles to the south, in West Dover, Vermont, Walt Schoenknecht of *Mt. Snow* has invested over three-quarters of a million dollars in new developments, while cramming two years of normal expansion into a single summer's work, as his vision of a mountain serviced by over a dozen chairlifts fast becomes a reality.

A new double-chair lift 4700 feet long has been constructed on the upper reaches of the mountain. This is directly in line with an existing 3000-foot lift and will make a second full lift-line to the summit, as

² We regret to say that in August Roderick Gould was killed while climbing in Switzerland. See below under Accidents.

well as serving the South Bowl and the upper, steeper sections. A new system of five trails, ranging from intermediate to expert, has been built in connection with this new lift. A novice slope, $\frac{1}{4}$ mile wide and $1\frac{1}{2}$ long, has also been constructed.

The base lodge has been tripled in size and now includes a large balcony-tower section overlooking a heated, glass-enclosed swimming pool, the first such pool east of Sun Valley. The new Lodge will house six brand-new restaurants, which together with the existing ones at the base and summit will allow the skier to purchase food at eight different places. In addition, the ski shop has been doubled in size, making it the largest in New England.

At the new *Sugarbush Valley Ski Area* in Warren, Vermont, work is being rushed for December completion of what will be the longest aerial lift in America—a 9300-foot European gondola tramway which will rise 2400 feet in fifteen minutes to the summit of Lincoln Peak.

Trails ranging in length from one and three-quarters to almost four miles have been cut. These will be supplemented by 200- to 500-foot-wide trails of open-slope type, providing a form of skiing quite uncommon in this part of the country. A 1200-foot T-bar, on an open practice slope, is also ready for operation this winter, as is the Valley House, a large and handsome building housing the restaurant, lounges, offices and a Sig Buchmayr Ski Shop. Peter Estin, one-time Dartmouth star and international racer, has been chosen to head a staff of topflight Austrian Ski School instructors, all of whom will be teaching in America for the first time.

Future development plans, to be carried out within a three-to-five-year period, call for many more aerial and surface lifts, a whole new network of trail development, skating, curling, winter horse shows and a 100-bed luxury lodge to be owned and operated by the Sugarbush Valley Corporation.

Over in the Granite State, the big news comes from *Mt. Whittier* in West Ossipee. Here \$150,000 is being put into the complete renovation of a long-established ski area on the Mittelgebirge slopes of Mt. Whittier. Two spanking new T-bars, 2000 and 1800 feet long respectively, will rise 1250 feet up from the valley of the Bearcamp. With a capacity of 1600 skiers an hour, the lifts will serve several trails, including the Barefoot Boy, 4000 feet long; the Witch's Daughter, 4200 feet long; and the River Path, 2000 feet long. This new area is of particular importance to the A.M.C. because of its proximity to the Wonalancet Cabin, a short ten minutes' drive away.

Norman E. Langdon, president of the Mt. Whittier Corporation, is planning to make even further improvements to the area in the summer of next year. Focal point of these efforts will be a 4000-foot-long enclosed Bubble Lift, paralleling the T-bars to the summit. This lift will be engineered and fabricated under the direction of the Louis De Roll Ironworks, of Berne, Switzerland. De Roll has thirty-three such installations in the world, including one up Mt. Vesuvius in Italy and one at Berchtesgaden in Germany. A summit house called the Pumpkin will also be built.

At *Cannon Mountain*, the slow upper T-bar has been replaced by a new and faster one, while its old length of 2185 feet has been slightly

increased. Special precautions were taken during the construction of the lift to alleviate the dangerous condition found at the top, where skiers who had come up on the Tramway were forced to cross the T-bar lift-line in order to reach the Taft Slalom and Ravine Trails. The eating house at the base of the Peabody Slopes has been raised onto a foundation and joined to the ski shop, while the Valley Station of the Tramway has been doubled in size.

ED HURLEY, JR.

CANOEING

Second Eastern White-Water Slalom Championships. High water, a tricky fourteen-gate slalom course and forty-five enthusiastic competitors were features of the Second Eastern White-Water Slalom Championships on the West River in Jamaica, Vermont, on April 26 and 27 of this year. The race was sponsored jointly by the Appalachian Mountain Club and the Buck Ridge Ski Club of Pennsylvania. Roland Palmedo of the New York Chapter of the A.M.C. served as chairman of the race committee.

Entrants for the competition came from far and near. The three A.M.C. canoeing groups—Boston, New York and Connecticut—were well represented. Other entrants were present from the Buck Ridge Ski Club in Pennsylvania, the Norwich University Outing Club in Vermont, the Canoe Cruisers Association of Washington, D. C., and the Ontario Voyageurs Kayack Club of Toronto in Canada.

The West River has long been one of the best canoeing rivers in the East. The course was set over about 2,000 feet of the river; the gates were placed in a long bend and the course ended in the slack water of historic Salmon Hole. The water was very heavy on Saturday, and Sunday's racing conditions were more nearly ideal. The fourteen-gate course was indeed a challenge. It consisted of straight downstream gates, reverse gates, 360-degree turns, a barrier, and upstream gates.

There were classes for single canoe (C-1), single foldboat (F-1), double canoe, men (C-2), double canoe, mixed (C-2), double foldboat (F-2), and a team race with six clubs putting teams on the starting line. In each class, each competitor made two runs, one on Saturday and one on Sunday. The exception was the team race, for which there was only one heat, run as the last event on Sunday.

The top three places in each class were:¹

CLASS	PLACE	TIME (Sec- onds)	NAME	CLUB
C-1	1	309	Robert Harrigan	Canoe Cruisers
	2	348	Nick Jacobs	A.M.C., Conn.
	3	384	Robert Field	A.M.C., Conn.

¹The above list is for the Eastern Championships. The Nationals were held simultaneously, but only qualified contestants belonging to the American Canoe Association were eligible. Thus, some people who didn't place in the Easterns were boosted to positions of eminence in the Nationals. This was the first time that a National race was held in the East.

CLASS	PLACE	TIME (Sec- onds)	NAME	CLUB
F-1	1	346	Eliot DuBois	A.M.C., Boston
	2	351	Robert Field	A.M.C., Conn.
	3	366	George Siposs	Ontario Voyageurs
C-2	1	293	Wight-Clarke	A.M.C., Boston
	2	298	Oliver-Oliver	Buck Ridge
	3	305	Pratt-Moulton	A.M.C., Conn.
C-2 (Mixed)	1	314	McNair-McNair	Buck Ridge
	2	391	Rentoumis-Davis	A.M.C., New York
	3	468	Sawyer-Sawyer	A.M.C., Boston
F-2		781	Weiss-Weiss	
Team Race	1	379		Buck Ridge
	2	417		A.M.C., Boston
	3	502		Canoe Cruisers

Many spectators lined the banks to watch the races and Governor Johnson of Vermont awarded the cups, medals and certificates to the winners. John Sibley of Foldcraft Kayack donated a paddle, which was given to Wight and Clarke for the best score. Roland Palmedo gave a handsome silver cup as a perpetual Eastern F-1 trophy.

Television, newspapers and national magazines covered the events and it was felt that the ensuing publicity will do much to popularize this rising sport.

MARY JANE SAWYER

Some Routes in Maine. During the past summer, several Maine rivers were explored by A.M.C. canoeists. The emphasis was on running rivers which were relatively unknown to the A.M.C. canoeing group, in order to gather data for the forthcoming A.M.C. New England canoeing guide and also to find possible areas for expanding the white-water-canoeing schedule into the summer months. A few of the more interesting rivers are briefly described below. More detailed descriptions are being prepared for the guide, including appropriate maps.

East Branch, Penobscot River. In early times the East Branch of the Penobscot was an important Indian route. One hundred years ago Thoreau made his famous journey down the East Branch. Nowadays it is not a popular canoe trip because of the difficult rapids and many portages, but for a strong and energetic party it offers an interesting route through rugged country. The usual starting-place is below Grand Lake dam. The 28-mile run to Stacyville requires two to three days. The river alternates between pleasant paddling on slow water and difficult rapids which require running carefully or lining down. In addition, there are four spectacular falls, the Grand Falls of the East Branch, which must be approached cautiously and require long portages. One may take out at Stacyville or continue to Grindstone, an easy day's paddle of 10 miles with good current. Below Grindstone the last 11 miles are less attractive; the river is larger and mostly smooth, with

moderate current, but there are also three very heavy rapids to be managed before the West Branch is joined at Medway.

Mooseleuk Stream and Aroostook River. This 50-mile course through the wilderness country of northern Maine is a fine trip for those who enjoy observing wildlife and running easy rapids. Because of the continuous fast current with few rapids, none difficult, this run can be made in two days with little effort. Start can be made in Mooseleuk Lake or in a small stream two miles above. The first day's paddle is across the lake and down Mooseleuk Stream to the Aroostook River, where there is a campsite. Continuing down the Aroostook, one can take out above Oxbow or continue on to a better landing place at Masardis.

Sourdnahunk Stream. Though not normally high enough to canoe in the summer, this small stream in Baxter Park offers a sporting run after a good rain. Start can be made at the well-known Ledges, an unusual formation where the road and the river-bed are one great sheet of rock. The stream winds and tumbles down a scenic valley, with Doubletop Mountain on the right and Katahdin towering on the left. After a few miles the stream enters a series of rocky gorges and the canoeing becomes more acrobatic, with a variety of boulders, ledges and chutes. However, with care and a few bumps, one can run them all single in an aluminum canoe, as the stream is generally too small to endanger canoe or canoeist. Take-out can be made along a side road near Kidney Pond, where there is a less turbulent stretch. Below here the stream cascades down to the West Branch of the Penobscot and is not canoeable.

Dead River. Apparently the Dead River derives its name from its middle section, which is nearly all flat. Most of this is now flooded by Flagstaff Lake. The lower section of this river is not dead, however. It is rather a continuous rapid with a steady drop of 30 feet to the mile, making a total drop of 440 feet in 15 miles, and flowing through a beautiful wilderness area. The narrow valley is flanked on both sides by the heavily wooded slopes of Hurricane, Basin, Stony Brook and Dead River Mountains. Here is white-water canoeing at its best. Start can be made at the foot of Long Falls, below the Flagstaff Lake dam. There is a 6-mile paddle to Dead River dam, a broken-down logging dam which can be run. Here the nature of the river changes abruptly. A short rapid leads to Grand Falls, where the river tumbles over a sheer 30-foot drop into a deep basin. These spectacular falls are perhaps the largest undeveloped waterfall in New England. A short portage is made into the gorge below and a fast current quickly carries one past the mouth of Spencer Stream. Only a few miles will probably be covered before the party look for a campsite and a much needed rest, the remainder of the river being run the next day. The river is generally wide, shallow and boulder-strewn, with many routes from which to choose, making for interesting but not extremely difficult canoeing. At frequent intervals, however, there are steeper rapids which require expert handling and which would be dangerous in high water. The best pitch is Poplar Hill Falls, a long rapid two miles above the finish. Below there the river gradually becomes less steep and finally joins the Kennebec at The Forks.



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TEAM RACE, CANOE SLALOM

New York Chapter team in last section of course



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FRED AND MARY JANE SAWYER

Riding out a haystack above Gate 7

BOSTON FEDERAL SAVINGS HOME MORTGAGES

"WHERE YOU SAVE DOES MAKE A DIFFERENCE"



A Narrow Miss on the Westfield River. On April 19 a combined group of Boston and New York canoeists were preparing to run the Westfield River when two men appeared and prepared to put in at the same time as our party. They had a rented 15-foot aluminum canoe, with no life preservers and no dry packs. The day was warm and the river in full flood as a result of melting snow higher up. The water was higher than any member of the party could recall from previous trips. One of the leaders approached the pair and learned that they had read of the trip in the *Bulletin* and had decided to make the trip at the same time. The leader told them that he thought the river was unsafe for anyone except properly equipped experts, but that since they were obviously mature men they would have to make their own decision. As they still were determined to go, we decided it would be better to keep them with our group than to take the moral responsibility of leaving them on their own.

The section from Cummington to Swift River was deceptively easy in the high water. Below Swift River, however, the water was exceedingly rough and everybody experienced considerable difficulty, with several upsets. About two miles below Swift River the pair in the 15-foot canoe swamped in heavy water on one of the turns. They held to the swamped canoe, but in view of the difficulties we had had with severe exposure from staying with a canoe for a long distance in cold water, I ordered them both to let go. The one who was nearer the shore made it quite quickly; the other I took aboard under difficult conditions, together with quite a lot of water. To avoid swamping, we put ashore as soon as possible and dumped the canoe, then proceeded with another of the New York canoes to chase the swamped canoe down the river. The difficulties of the river were such that neither of us dared to pick up the swamped canoe even though we were quite close to it several times. Perhaps a half-mile farther down the river, it hung up on a large rock and we spent the next hour or more getting it off. Fortunately, emergency patches were possible and I paddled it the rest of the way to West Chesterfield Dam. In water as heavy as there was that day, the 15-foot model is difficult to handle and even solo I came close to swamping.

Had we not been at hand to help, the situation had all the elements of a serious accident. With several miles of continuous rapids ahead and flood-water conditions, it would have been almost impossible to swim the canoe ashore. As the two men did not have life-preservers, their heads would have been under many times in the turbulent, air-filled water. Prolonged exposure to water that cold is numbing to a point where they might not have been able to get ashore had they continued with the canoe to the point where it hung up.

There is no question that the addition of this ill-equipped and not overly skillful pair both delayed our party and added a decided element of risk. In retrospect, possibly we should have been more vigorous in our efforts to dissuade them from attempting the river. However, it raises the question whether some means should not be found to advise the general public that although a river may be safe for a competent, well-equipped party, it may be exceedingly dangerous for others. It is with the thought of bringing this to the attention of all our members that this note is written.

PERCY T. OLTON

ACCIDENTS

In Tuckerman Ravine. On Saturday, May 17, 1958, a typically fine spring skiing day with plenty of sunshine and warmth, between 100 and 300 skiers frequented the bowl in Tuckerman Ravine throughout the day. As is typical at that time of year, chunks of ice would occasionally break off from the rocks high on the headwall and bound down the slopes amongst the skiers. At about 1.30 p.m. a particularly large piece of ice fell from the rocks above Lunch Rocks to the right of the Lip, accompanied by the warning shouts of skiers. While most skiers were able to dodge successfully out of its path, one of their number was not so fortunate. William Brigham, age 28, of Westmount, Montreal, P. Q., had just put on his skis when he was struck in the back by the ice, knocked down by its tremendous force, and rendered unconscious.

Standing down below the headwall at the connection cache was a U.S. Forest Service alternate patrolman, Dalton Dulac, who witnessed the whole thing and hurried to the scene. Also nearby were three members of the Mt. Washington Volunteer Ski Patrol, Nelson Gildersleeve, Henry Parris and Richard Brown, all of whom joined Dulac in giving first aid to Brigham. A volunteer group of some fifteen skiers was quickly rounded up to aid in carrying Brigham down to Pinkham by Stokes litter.

At the time this accident occurred Joe Dodge and I were down at the Old Hutmen's Cabin to visit with some of the boys who were returning for the annual spring reunion. I stayed there briefly and then returned to Pinkham, where I was notified of this mishap at once. Shortly after I arrived back at Pinkham word came that a doctor was needed immediately with some oxygen. I called Dr. Francis Appleton of Gorham, who luckily was at home, and who stated that he would head right out as soon as he picked up some oxygen at the Fire Station. Meanwhile, Conservation Officer Paul Doherty of Gorham showed up at Pinkham. I advised him of the accident and asked him to escort with his cruiser the car carrying the injured man to the hospital, to which he readily agreed.

In a very few minutes Vic Emery with two other companions of Brigham's from Montreal arrived at the base of the Tuckerman Ravine Trail and said the stretcher was coming right along. Emery backed his station wagon near the foot of the trail and when the stretcher arrived it was hastily put aboard. I got into Doherty's car with him and, with red lights blinking, we set sail for Berlin as fast as the car would go. At Three-Mile Field this side of Gorham we passed Dr. Appleton heading for Pinkham at a great rate of speed; we flagged him down and he immediately applied oxygen to the injured man and inserted a needle of adrenalin right into Brigham's heart—but to no avail. Brigham had apparently died on the stretcher about halfway down the mountain.

We accompanied the body to the St. Louis Hospital in Berlin where Dr. Beaudoin, the Coös County medical examiner, viewed it. Brigham had suffered a broken right scapula and fractures of several ribs which had caused puncturing of the thoracic cavity, resulting in fatal hemorrhage. It was medical opinion that the injuries were so severe that Brigham would not have survived even had he been able to get to a hospital immediately.

This accident was an event which was beyond the power of humans to control. It was "just one of those things" that happen occasionally. It cannot be compared with one of the accidents which befall hikers through ignorance and carelessness, because no amount of preparation or planning could have prevented it. When an area as large and rugged, and at times as dangerous, as Tuckerman Ravine plays host to such large groups of people there are going to be accidents from time to time. Those of us who are concerned with activities there can only do our best to keep such accidents to a minimum, but it will be humanly impossible to prevent all accidents there under the present conditions of use.

GEORGE T. HAMILTON

On Mt. Washington, July 19-20, 1958. On Sunday, July 20, 1958, at approximately 1.45-2.00 p.m., a lone hiker discovered two bodies lying just off the Crawford Path in the area known as "Grampa's Cut-Off" or "The Slide", about one-third of a mile from the summit of Mt. Washington. The hiker, a Mr. Zimmer from Ohio, not realizing that the Lakes-of-the-Clouds Hut was so much farther away than the summit, continued on to the Hut and notified the hutmen of his discovery. The hutmen, in turn, telephoned the news to the Observatory, and the observers notified the Air Force personnel at the Laboratory, requesting them to telephone Joe Dodge at Pinkham and have him contact the Observatory by radio for any further developments. The hutmen from the Lakes then climbed the mountain, meeting men from the Observatory and the Air Force, and after a short search located the bodies and carried them to the summit. There attempts were made to revive the couple by the use of oxygen, but to no avail. Oxygen was continuously applied to the two subjects as they were carried down the Carriage Road in an Air Force Carry-all to the base, where they were examined by the medical referee; unfortunately these efforts toward resuscitation were unsuccessful.

This climaxed the attempt to locate two young hikers, Paul Zanet, age 24, and Judy March, age 17, who had left the home of Miss March in Dorchester, Mass., at 10.00 a.m. on Saturday, July 19, with the intention of climbing Mt. Washington and returning to Dorchester around 10.00 p.m. that same evening. When the couple failed to return by the pre-dawn hours of July 20, the March parents notified the Massachusetts State Police, who in turn notified the New Hampshire State Police via teletype about the missing couple. An early-morning check by Joe Dodge via radio to the Observatory established that no one of their descriptions had stayed the night at either the Lakes-of-the-Clouds Hut or the Summit House. The hikers' car was not discovered at the Base Station until after the bodies had been found up on the mountain.

Subsequent investigation by the U.S. Forest Service revealed that the couple were seen in the gift shop at the Base Station around 12 noon, and that they inquired about routes up the mountain, according to testimony of employees there. The hikers were advised against climbing that day because of the severity of the weather, but were told that if they intended to climb regardless of conditions they should take the Jewell Trail rather than the Ammonoosuc Ravine Trail, because it was

an easier trail. Testimony further stated that the couple returned again to the gift shop around 5.00 p.m. and inquired once again about the trails. Again they were warned about climbing that day, and when they left the building the employees thought the couple had been persuaded not to climb.

A check of the Observatory records reveals that the weather during these two days was far from ideal for climbing above treeline. For the period from 12 noon, July 19, to 12 noon, July 20, the maximum temperature was 43, the minimum 38 degrees. The wind velocity averaged 55 m.p.h. from the N.W., with a peak gust of 88 m.p.h. at 8.10 p.m. on the 19th. In the same period 1.55 in. of rain fell in the form of moderate showers. To those who have climbed above treeline here in the Presidentials, it does not require much imagination to realize how miserable were conditions at the time these young people were on the mountain.

The ranger who made the report of this accident for the Forest Service concluded that the hikers ascended the Jewell Trail, leaving the Base Station around 5.00 p.m. on the 19th. The Ammonoosuc Ravine Trail was ruled out, since the hutmen at the Lakes-of-the-Clouds Hut definitely did not see the two people in question that evening, and felt certain that they would have known if the hikers had stopped at the Hut, since there were only about a dozen guests there that night. The assumption is that the two hikers continued up the Jewell Trail to the Gulfside and on to the junction of the Gulfside Trail and the Crawford Path. Here there was one sign indicating a left turn to the summit, distance unmarked, and another sign indicating a slight right turn towards the Lakes-of-the-Clouds Hut, with the distance noted. The hikers apparently took the right turn and sought shelter in the first available spot, for their bodies were found just a short way down the trail towards the Lakes. The Forest Service report notes that a rock was found between where the two bodies had lain with the letters DARK scratched on it, apparently done with another rock. Here the two young hikers lay down, in a state of near exhaustion, and fell asleep never again to awaken—two more victims of exposure, proving once again that the combination of fatigue, high winds, rain and low temperature is one which can easily be fatal to the unwary hiker on the high peaks.

In retrospect it should be noted that there were several contributing factors to this tragedy. Without being able to check extensively on the backgrounds of these two people, I have nevertheless found out that they had had no mountain-climbing experience, as is moreover quite evident. First of all, we note a gross error in their time allowance for this trip, since they did not feel obliged to leave Dorchester until 10.00 a.m. of the day they planned the ascent, and allowed a mere 12 hours for the entire trip. Then we note a discrepancy in the testimony of the employees at the gift shop of the Base Station, who said the couple were there around noontime, an impossibility when traveling by car along the route they had to take. It must have been considerably later in the afternoon when the couple first showed up at the Base Station. Then we note that it was indeed unfortunate that the Jewell Trail was recommended in preference to the Ammonoosuc Ravine Trail. Due to the extreme weather conditions prevalent that day, the couple never should

have climbed in the first place, but due to their inexperience they did not realize the hazards involved. The Jewell Trail route to the summit of Mt. Washington necessitates remaining exposed to the elements for a much greater distance than the Ammonoosuc route. Moreover, the Ammonoosuc Ravine Trail brings the hiker right to the Lakes-of-the-Clouds Hut, which it is impossible to miss because the trail joins the Crawford Path near the southeast corner of the Hut. Often in bad weather hikers stop at the Lakes Hut rather than continue on up the mountain. We further note that there is a great possibility that the signs at the junction of the Gulfside Trail and the Crawford Path may have influenced the actions of the hikers. Of course we don't know the exact time of day the hikers reached this point; perhaps they did not see the signs at all due to fog and darkness, or perhaps they did see the signs and since the sign pointing towards the summit had no distance noted on it,¹ they decided to head for the Lakes Hut, 1¼ miles away. In any event, if they had turned up the Crawford Path instead of down it they would probably still be alive today. Or if they had kept on downhill, and kept moving at all costs, they would have eventually reached shelter at the Lakes Hut, showing again how fatal it is to stop in such weather conditions. Finally, their complete lack of preparation for a mountain trip is too well illustrated by the grim fact that they carried with them no extra clothing, no food, no flashlight, and none of the other accessories which might have been useful on a trip of this kind. This episode emphasizes again that there are only a few basic rules which hikers must abide by in order to enjoy these mountains, but that failure to do so can be disastrous.

GEORGE T. HAMILTON

In consequence of the report of this accident in the newspapers there has come into our hands, indirectly, a letter describing how a party, similarly inexperienced and ill-equipped, just managed to avoid a similar fate. We publish this letter with the permission of the writer, thanking him for his candid confession, which throws a revealing light on how things of this sort can happen.

Joe Baldwin, Paul McKeough and myself went to New Hampshire for a short vacation before starting college. On our way we stopped and attempted to climb Mt. Webster by way of the slide. (I believe it is known as the Willey House Slide.²) We reached a point where we could go neither up nor down—a point where the angle of ascent must be about 60 degrees and the surface is as smooth as a superhighway. McKeough, who always was a brave soul, finally did manage to get to a position of safety and by using our belts, which we had tied together, he pulled us up. However, that is another story.

The next day we decided to climb Mt. Washington. We departed, making our intentions known to the innkeeper. We started our climb from the Base Station of the cog railway. It was September, but the weather was warm and we were dressed in light pants, sport shirts and little else. Realizing we might get hungry we carried sandwiches

¹ This lack has now been remedied.—Ed.

² The Willey House *Gully*. The *Slide* is on Mt. Willey.—Ed.

in a paper bag, plus a bottle of olives. I do not know the name of the trail we took; however, it entered the woods to the left of the station and was supposed to be the best trail for a group of novices to take.³

We left our car at the base and started up. For the first hour or so the weather was fine, the view magnificent, and we were at peace with the world. During the next hour the situation changed somewhat in that we began to notice clouds forming around the summit. It was at this point that we came upon a sign, posted on a tree, that said to turn back if the weather seemed to be bad and further stated that climbing to the summit in bad weather could be very dangerous. Being young and foolish, and thinking we were practically at the summit (we had not even passed the timberline), we forged ahead. The higher we went the stronger became the wind. We passed beyond the timberline and finally entered into the clouds. Now we not only had the wind to contend with but also the mist, which was being driven by the wind. (We later learned that the wind was blowing 60 m.p.h., plus.) At this point I believe we were about halfway to the summit, but we thought it was only a few hundred feet away. We kept climbing, it got darker and the weather got worse, but our spirits remained high. We passed through the evergreens twisted out of shape by the wind and reached the point where the weather is so severe that the trees cling to the rocks and form a green carpet. At this point there is no well-defined trail [*sic*], the only guides being piles of stone placed so many yards apart. The weather had grown worse and at times it was impossible to see the next marker. The sandwiches, soggy or rather soaked, were useless—so we enjoyed a lunch consisting of olives. It now began to rain, the mist seemed to grow thicker, and the wind picked up. Even at this point neither I nor my companions realized the danger we were in. We did a few minutes later, when we lost the trail completely. (I think now it was at a point where two trails merged.⁴) True, we could see markers, but they seemed to go in all directions [*sic*]. We did see a series of markers that seemed to indicate a trail which seemed to lead down; however, since the trail we were following had often done this we thought nothing of it. We followed this trail for a hundred feet or so, when McKeough sensed that something was amiss and we stopped for a council of war. It was finally decided to abandon this trail that went down. We retraced our steps, saw a group of markers that led up, and once again we were headed in the right direction. In the meantime the weather had grown still worse, the rain had increased, and the wind was really something. The mist cleared for a few seconds and over to the right, several hundred feet away, we saw the tracks of the cog railway. By following the tracks for some distance we came upon a well-defined trail which led us to the radio station on the summit.

When we arrived it was dark; we could just about make out the outline of the hotel. The time, I believe, was about four o'clock. We walked into the hotel and what a sight we must have presented! We engaged the bunk-room, stripped down, wrapped ourselves in blankets, consumed several bowls of hot soup, then just sat and rested and thought how lucky we were to be safe.

On the way down next day we saw how close we came to walking over a precipice with a drop of several hundred feet;⁵ we saw where

³ Evidently the Jewell Trail.—Ed.

⁴ Probably the junction of the Jewell and Gulfside Trails.—Ed.

⁵ The Great Gulf headwall.—Ed.

we had missed the trail, and realized that had we not retraced our steps we might not be enjoying this splendid day. I wonder how many people have come close to sharing Zanet's and Miss March's fate. We were talking it over the other night and agreed that most people visiting or attempting to climb Mt. Washington little realize how dangerous such an undertaking can be.

DONALD J. RYAN

The 1958 season has been a quiet one as far as search and rescue in the White Mountains are concerned.

The ill-fated climb of the two young people on Mt. Washington was, of course, an unfortunate accident. As the bodies were taken down the mountain by U.S. Air Force personnel, I shall not go into details of that affair. I will say, however, that both Conservation Officer William Hastings of Conway and I had been alerted early in the day, by the State Police, that two people had not returned from a climbing trip up Mt. Washington. We were trying to locate the vehicle used by these people in order to determine which trail they had taken. At about the same time the bodies were found on the mountain, Corporal Lloyd Sherman of the State Police had succeeded in locating the car in the parking lot at the Base Station.

On August 9 I received a 'phone call at 5 p.m. from Donald Mitchell, manager of Crawford Notch State Park. He informed me that he was unable to contact Conservation Officer William Hastings and went on to say that there was a 12-year-old boy high on Webster Cliff with a possible broken back.

I proceeded at once to Crawford Notch, after calling for assistance from other Conservation Officers and members of the State Police.

At the Notch I learned that a group of some thirty-one youngsters, from a boys' camp in Maine, had camped the night before at the Dry River Campground. That day, which was a Saturday, they ascended Mt. Webster via the Webster Cliff Trail. At a point overlooking the Willey House the group stopped for lunch. Lunch over with, the counselors decided to take the party down over the cliffs to the highway.

I might point out here that this idea was indeed a most foolish one. Readers of APPALACHIA who are familiar with the western face of Mt. Webster know that few climbers attempt to go either up or down this area of loose granite, scrub evergreens and landslides.

Nevertheless, the group started down. Mistake No. 1. Mistake No. 2 enters the picture here. The counselors allowed the thirty-odd young boys to split up and make their own way down the mountainside. I am sure readers will agree with me when I say a climbing party of youngsters must at all times stay together, with a capable leader and a reliable person bringing up the rear.

About a quarter-mile down the mountain one of the boys slipped and hurt his back. One of the counselors stayed with him, as did another boy. Word was sent down to the valley that a boy with a possible broken back was on the mountain and immediate assistance was requested. (It later turned out that the boy wasn't hurt at all.)

It's a miracle that all those kids reached the highway without mishap. But they did. They slid and plowed down the steep face of Webster and

the last one reached the Willey House at 5.30 in the afternoon. I shudder to think how easily a rockslide could have been started that could have cost the life of not one but several of those kids from New York City.

Well, anyway, we started up Webster with food, blankets, litter and rope. At 10 o'clock that night we located the spot where the injured boy was supposed to be. All that was there were two ponchos and a note written by the counselor that read, "Trying for top".

I might inject here that during the climb up Webster I asked a lot of questions, of a counselor who went back up with us, about the boy who was said to be injured. I learned that he was a complainer and was talking about how his back hurt even before the party had stopped to eat lunch.

After learning this, and upon seeing the note, I made up my mind that we didn't have an injured boy on our hands. I also noted mistake No. 3 at this point. If you send for help it's a good idea to stay put until that help arrives, especially if you're not any more woods- and mountain-wise than those counselors were.

We climbed back to the top of Webster, I built a fire and we spent a cold wet night. It rained, the wind came up and by daylight was blowing about 50 miles per hour.

Starting out at the first light of day we began to search the long top of Mt. Webster. Remember, the note said "Trying for top".

There was much speculation among members of the search party as to where the three were. Due to the condition of the Webster Cliff Trail, on the top of the mountain, it was thought that they might have crossed the trail without knowing it. Should this have been the case they would then have been heading into the Dry River country.

I could not buy this theory, however. Having been brought up in the woods and having been in on more search and rescue parties than I can now count, I had my own ideas. I told the boys that even though the note read "Trying for top", our three were no doubt on their way down the mountainside. I went as far as to say they would probably reach the highway by 8 a.m. At 7.30 a.m. we received word via walkie-talkie that the three had reached the Willey House.

I am, naturally, happy that there were no accidents. However, I thought when walking back down Mt. Webster that it was a shame the counselors who led this group were not lugging the Stokes litter and other gear back down to the valley.

This affair is typical of the type of thing that occurs each and every summer in the White Mountains. Groups of youngsters in the hands of people who are not capable of leading parties do all sorts of foolish things.

Unless summer camps do something to insure tighter safety measures there will surely be a very bad accident some day. Think of what could happen if a group of kids got into the kind of weather that killed the young man and girl on Mt. Washington this year. It's conceivable to me that an entire camp of fifteen or perhaps twenty-five kids could die of exposure under the proper conditions while being led by people who were not mountain-wise or mountain-cautious.

PAUL T. DOHERTY, *Conservation Officer, Gorham, N. H.*

On Mt. St. Elias. A party of four attempted the ascent of Mt. St. Elias by the W. buttress early in July. They were David Tolland of Grand Rapids, Mich., Leo Slaggie of Albany, Calif., Ray D'Arcy of Boston, Mass., and Ritner Walling of Philadelphia, Pa. The party were hit by an extremely heavy snowstorm at their camp at 13,000 feet, and on the morning of July 18 D'Arcy and Walling found Slaggie unconscious in the entrance to the tent he occupied with Tolland, while the latter was apparently dead. Slaggie was revived but suffered from frost-bite. Tolland, however, could not be revived despite some four hours of artificial respiration. The two men had apparently been suffocated in their partly buried tent from lack of ventilation. Slaggie was helped down the mountain in four days to a rendezvous with a plane and taken to the hospital in Juneau.

In the San Juan Mountains of Colorado. On July 4 a group of fishermen noted the absence of two of their group and when they failed to find them on the 5th they reported them missing. The two men, John L. Sanders and William E. Garver, had turned back to search for Garver's wallet and had slipped on some loose rock at the edge of Conejos Canyon. Garver fell some 800 feet and was killed instantly. Sanders fell several hundred feet but his fall was broken by a tree, to which he clung and then tied himself with his shoelaces. In this position he was found four days later and was supplied with food and water by Don Bewley, who roped down to him with supplies and stayed with him until he was rescued the following day by an Army climbing team from Fort Carson, Colorado.

In Yosemite National Park what might have been a serious accident was averted when a sick skier was rescued by helicopter from the slope of Mt. Lyell. A group of six from Leland Stanford University, under the auspices of the Stanford Alpine Club, set off March 22 on a six-day trip into the High Sierra country. When one of the party, William Pope, developed what appeared to be pneumonia, two men went for help while the other three—a man and two girls—stayed with Pope. These four were finally evacuated by a U.S. Army helicopter on March 31, the machine making a difficult take-off from an altitude of over 11,000 feet.

KENNETH A. HENDERSON

Roderick Gould. On August 1 a guide found the bodies of two climbers at the foot of a large ice gully on the western slopes of the Dent Blanche, above Evolena, Switzerland. These were later identified as Roderick Gould, aged 25, A.M.C. member, and John Hutchinson, aged 21, of Sheffield, England. Hutchinson was an experienced Alpine climber.

Roderick Gould graduated from Amherst in 1954 and taught mathematics at Harvard, 1954-7, while studying there for his M.A. and Ph.D. degrees. During July and August, 1956, he climbed all the 38 (as they were then counted) White Mountain 4000-ers in five consecutive weekend trips (see APPALACHIA, December, 1956, 247-8) and was the third person (following Nathaniel Goodrich and Francis Parsons) to finish, in May, 1957, the present 4000-footer list. During the winter of 1957-8 he worked in Belgium. An account of a ski trip to Norway with his wife, in the spring, may be found in this issue of APPALACHIA, 259-60.

Before Roderick started work in mid-October at the General Electric Research Laboratories in Schenectady, the Goulds planned a summer of climbing in the Alps. Mrs. Gould was to climb with her mother-in-law in the Stubai valley in Austria while Roderick, as he wrote, was "engaged in an intensive campaign in the Valais".

Mountain Leadership Committee. In response to the growing need for action in the field of mountain safety, the Mountain Leadership Committee of the A.M.C. has undertaken a four-pronged campaign which, it is hoped, will produce real results in the months and years ahead.

Members of the Committee were included in an A.M.C. group who met with representatives of the Forest Service to discuss the general problem of safety in the White Mountains. One matter considered was trail signs and warning notices at and above timberline in the Presidential Range. It is planned to make some changes so that the signs will be more specifically worded to indicate the time required to reach shelter for each trail, and to make the warning signs more eye-catching.

The Committee have made plans to compose a manual for leaders, giving the essential wisdom that a leader should have, and ideas leading to the state of mind that a leader should consistently maintain. It is hoped that portions of this manual will be available within the next year so that distribution can be made to those groups having individuals wishing to qualify as leaders.

The Committee have made plans for a poster to be displayed at huts and shelters in the White Mountains, and in such other places as can be arranged, calling attention to the dangers inherent in mountaineering, to the end that people without proper qualifications or equipment may be induced to give further thought to the possible consequences of their actions. They have also made up a special filmed opening and a closing to the A.M.C.'s "Mountains Don't Care" which lend added emphasis to the message of the film.

Most important of the Committee's projects is that of leader certification. The Committee have drawn up standards for various grades of leadership. The first two grades, which are the most important in the White Mountains, are defined as follows:

Grade I. Trip leader in summer, qualified to lead a hiking or camping party on or off trails in the summer season, below or above timberline (but not on technical rock or snow routes).

Grade II. Trip leader in winter, qualified to lead a hiking or camping party on or off trails in any season, below or above timberline (but not on technical rock or ice work).

Copies of the detailed requirements for these grades may be obtained from the A.M.C. office at 5 Joy Street, Boston, or from the Chairman of the Committee at WWLP, Springfield, Mass.

The Committee will certify those who are found qualified in any of the categories listed, awarding them a card and a shoulder patch. They plan to make this leader-certification service available to all interested persons, regardless of their group affiliation or place of residence. It is hoped that outing clubs, summer camps and similar groups will wish

to qualify their leaders in this way so that competent leadership can be recognized and, by inference, incompetent leadership eliminated.

The Committee realize that this is a long program which will undoubtedly take them months, if not years, to establish fully. Notices concerning this program will appear in future *Bulletins*.

WILLIAM LOWELL PUTNAM,
Chairman, Mountain Leadership Committee

HUTS, CAMPS AND TRAILS

The Randolph Mountain Club Camps. The most interesting thing which has happened this summer to the R.M.C. camps has been the rebuilding of Gray Knob. Strictly speaking, this is not an R.M.C. cabin at all, but is in the care of the Town of Randolph. Still, the R.M.C. has supervised it (through the Crag Camp caretaker) and kept it in order. But after more than forty years it had finally deteriorated structurally to the point where something had urgently to be done. So the Town of Randolph voted funds for its repair, and the R.M.C. offered to see the work done.

In July Freeman Holden (who also built the Perch) and his son Baxter took up residence in Gray Knob. They replaced the rotten supports, rebuilt the porch, installed three new windows and a new stove, made a wonderful mouseproof, and fixed up the toilet. At the same time 50 lbs. of oakum were transported up, and a volunteer party spent a day and a half chinking the many air vents between the timbers, a condition which had given Gray Knob the reputation of being all too well ventilated. Now it is so no more. In the evening the whole chinking party repaired to Crag Camp for a square dance. The fine organ of Crag furnished the music.

Nothing new has happened this year to the Perch or the Log Cabin. Both are neat, in good order, and frequently used. The favorite R.M.C. camp is, of course, Crag, which gets used for nearly twelve months in the year. In July and August, while the caretaker is there, blankets are to be had. In the off season very few blankets are there, so sleeping-bags must be brought. The supply of firewood is meant to be used only during the time when snow makes the gathering of wood an impossibility. The R.M.C. hopes that some climbers will also try Gray Knob this winter. Its small (one-hole) stove is very efficient and heats the small cabin quickly. There are beds and mattresses for 8-10 people.

KLAUS GOETZE, *President, Randolph Mountain Club*

At Katahdin. The campgrounds in the Katahdin area are being well maintained and gradually enlarged to accommodate increasing demand. Pitman (formerly Katahdin Stream) Campground is deemed to have reached its effective capacity, and in order to take care of the load another campground is being constructed nearby at the foot of the Abol Trail on the Millinocket-Sourdnahunk Tote Road. The shelters are being built along one of the major branches of Abol Stream and are well located. Ranger's cabin, garage, and a few shelters were up in time for the 1958 season. This development will bring the Abol Trail more activity than it has known for a long time.

RONALD L. GOWER

Mt. Success in the Mahoosuc Range may now be reached conveniently from Shelburne, N. H., via the site of the 1954 plane crash on the S.W. face of the summit. From the North Road, 1 mile east of Philbrook Farm, it is usually possible to drive 3 miles up Ingalls Brook over an earth-and-gravel lumber road to the old High Bridge at the fork of the stream. Beyond this point woods roads, marked by cairns at doubtful turns, may be followed on foot up the west branch about $2\frac{1}{4}$ miles to the start of the wide salvage path which was cut in 1955 for bringing out the wreckage. The job proved impracticable and some two-thirds of the plane remains about $1\frac{1}{4}$ miles up the path, surrounded by a dense growth of small spruce and fir. A narrow trail continues about 0.2 mile to the Mahoosuc Trail, at a point about 0.3 mile S.W. of the summit. The distance to Mt. Success from the North Road is about 7 miles, and from the High Bridge about 4 miles.

The Scudder Trail up Ingalls Mountain in Shelburne, N. H., has recently been flagged and reopened by guests of the Philbrook Farm Inn. The Lower and Upper Ledges are the points of greatest interest, affording fine views of the Androscoggin Valley and the Mahoosuc Range. The summit (2253 ft.) is three miles from the Inn and can easily be reached in about $2\frac{1}{2}$ hours.

The trail was a favorite of the late Vida Scudder, and was named for her during her lifetime.

THORN DICKINSON

The Mt. Willard Trail at Crawford's, the lower part of which, since the hurricane of 1938, has been severely damaged by washouts, with gullies 10-15 feet deep in places, was relocated in this lower part, cleared throughout and suitably marked—as a July holiday project by Romeyn Spare of the Connecticut Chapter, Percy Prescott of Belmont, and your correspondent, most appreciative guests during this period of Manager Dick Edgerton at the Crawford House.

This old trail, which through its long history as a carriage road and burro path has afforded at its terminus one of the most magnificent views in the mountains for a minimum of effort, is again in condition to provide an attractive and rewarding climb for the novice or the family group.

The Portland Chapter is currently requesting permission to assume the responsibility of permanently maintaining this trail as a Chapter project.

S. ALLAN HOWES

HISTORY

The Disappearance of Keenan.¹ I recall the search for Keenan. All the able-bodied men who could get away went out and looked for days for that poor fellow, who had been in that party of Jewell's who were surveying on Mt. Washington for a possible electric road around the mountains. He was the victim of what I shall always think was hazing, for he was a young fellow from Charleston and there at the Base Station camp they had him so scared that he never dared look out after dark

¹ See the note by Jewell, *APPALACHIA*, December, 1957, 556-7.—ED.

because of the bears. At the time he became lost he had been told to hold a rod, down on the cone. The clouds came in and the others—they thought it was a good joke on him—calmly went up and had their lunch on the summit, expecting he'd follow. But after they'd had lunch and he still hadn't appeared, then they got alarmed and went out. But the clouds were so thick no one could find his way. So poor Keenan wandered off and apparently went down Tuckerman's. For he was seen on the Glen Road not far above the Glen House by two or three parties. But nobody down below, until after these people had seen him, knew anything about there being a man lost. Mr. Lightfoot from Bethlehem picked him up and gave him a ride back to the Darby Field site where he had apparently come down. At that time there were some old ruined camps there which strangely enough we knew locally by the name of "Keenan's"—deserted lumber camps that Keenan, a jobber, had run. When Mr. Lightfoot got there, Keenan said, "Well, this is where I get off, this is Keenan's". He never was seen by anyone after that, although the search went on for days and days. Of course you understand that back in that time there were many woodsmen wandering back and forth, summer and winter. They were often inclined to be a rough-looking crowd, and perhaps more or less intoxicated. So Lightfoot didn't find it strange to see a ragged character going along. Lightfoot picked him up but he was only too glad to let him out, because he didn't think he was a very pleasant companion.

It's possible that he might have turned and gone over onto the Carter side, but all the searching that we did was on the south, Darby Field side. There were large parties of us and we lined up along the Glen Road at short distances and then went back into that scrub and old logging cutting. There were innumerable places where a man could have crawled in for shelter and not been seen in all these windfalls and the tops of the old trees all around.

Lightfoot had a good chance to judge that he was a young man, and that his clothes were torn and he was in bad shape, but whether from climbing or fighting of course Lightfoot couldn't tell. Bick and I followed the river down to see if by any chance there was any trace. For a long time we had it in mind as we tramped around that somebody might come upon the remains, but nobody ever did.

GUY L. SHOREY (*recorded*)

CONSERVATION

The 85th Congress, Second Session, made an excellent conservation record. Its major accomplishments of this nature may be summarized.

The National Outdoor Recreational Resources Review Commission was established to inventory present facilities and project recreational needs into the years 1975 and 2000. Such coordinated planning by the many agencies and organizations concerned with outdoor resources has long been needed to meet mounting demands. An appropriation of \$50,000 was granted to initiate work.

The U. S. Fish and Wildlife Service has been authorized and directed to investigate the effect of chemical pesticides on wildlife. (See note below.)

The Duck Stamp Act provides for a \$3 stamp, all proceeds from its sale to be used by the U.S.F.W.S. solely for the acquisition of suitable habitat lands for breeding, wintering and feeding grounds to perpetuate the waterfowl population.

Amendments to the Coordination Act of 1946, which permitted the "mitigation" of fish and wildlife losses caused by dams, now authorize "enhancement", so that Federal and state wildlife agencies will have a voice in planning water-resource development.

The Engle Bill prescribes that military withdrawals in excess of 5,000 acres must have Congressional sanction and that state hunting and fishing regulations shall apply to military personnel.

Seven hundred thousand acres of the Klamath Indian Reservation lands are to be sold only with the requirement of sustained-yield management. This law will forestall extensive watershed damage, loss of a 23,421-acre waterfowl marsh, and financial difficulties for the Indians. The marsh is to be added to the U.S.F.W.S. refuge system.

An amendment to the Watershed Protection and Flood Prevention Act permits Federal cost-sharing on fish and wildlife developments on these projects.

In the highway construction bill an anti-billboard measure was passed, against great opposition, requiring state legislative action under the stimulus of a Federal cost-sharing "bonus" proviso.

The bill conferring statehood on Alaska contains a clause retaining Federal jurisdiction over Alaska's fish and wildlife resources until the new state is ready and able to assume control.

The chief loss in the conservation field is the passing, in the Omnibus Rivers and Harbors and Flood Control Bill, of an appropriation of \$500,000 for detailed planning of the Bruce's Eddy Dam on the North Fork of the Clearwater River in Idaho, a project which has not as yet been authorized and which is ardently opposed by conservationists.

MARJORIE HURD, *Chairman, Conservation Committee*

Chemical Pesticides. The recent Congress passed the Federal Pesticide Research Bill (S.2447), which authorized the United States Fish and Wildlife Service to conduct an expanded program of research in the effects of chemical pesticides and to seek safer methods of using such chemicals. This is a step in the right direction in an effort on a national scale to find the answers to a series of uncomfortable and frightening questions which should be the concern of all people who treasure our natural resources.

Research so far has been on immediate effects on the target animal in an area sprayed, with little or no concern for the effects on human beings, domestic livestock, wildlife or soil organisms. There is sufficient indication, however, to surmise that the cumulative effects could be devastating. There are about five hundred different chemicals which need to be tested in order to determine their chronic toxicity. Chances are that the reaction of other animals, including man, are similar to those of the target animal—damage to one organ or another, shortening of the life span, possibility of interference with vital enzyme action, with reproductive capacity, and with resistance to disease. Are these poisons

building up year after year in the soil? In some areas the contamination of milk with residual organic pesticides continues to increase.

The answers to these questions can be found only in research which will take several years. In the meantime, responsible officials agree that there is a serious need for state legislation to control and regulate all spraying and dusting, both public and private. We should insist that all spraying programs be carried out only as a result of demonstrated need. We should support needed research programs. The landowner can retain his property rights and should allow spraying on his land only with his permission.

BARBARA DuBOIS, *Member, Conservation Committee*

Rhododendron State Park, Fitzwilliam, N. H. The sad neglect of this park has been due to the side effects of the "pay-as-you-go" program under which our park system has been operating for some six years. Now that we have relief from this policy, we are turning our attention to this park. The friends of the park have chided us for this neglect and spurred us to prompt correction.

Structural repairs to the cottage will get under way this fall. While it is in disrepair, it is not seriously injured. Mending sills and roof, painting, and the removal of the ell are the main remedies to be undertaken.

The rhododendron bloom has been the chief public interest in the park and other aspects have been neglected. But we are making plans to remedy this by next season. Conversations are under way with the Audubon Society of New Hampshire to see if it seems advisable to establish a bird-banding station and make this park of considerable interest to our ornithologists.

If this doesn't appear to be the right course, some other branches of the natural sciences will be considered for an interpretive program. Criticisms of this and other suggestions are solicited by the N. H. Recreation Division which administers State parks.

RUSSELL B. TOBEY,

Director, State of New Hampshire Recreation Division

Madison Boulder. The State acquired the Madison Boulder Reservation of eleven acres in 1946 by gift of the Gerry family of Madison and the Kennetts of Conway, N. H. Geologists believe that this mass of granite, 30 feet wide by 40 feet high by 75 feet long and weighing 7,650 tons, was carried about two miles from its original location by the glacial ice-sheet thousands of years ago. It lies in a valley at the end of a town road which leaves the main highway about one and one-half miles north of Madison Village. No funds have been available to improve conditions about the Boulder until the Legislature of 1957 provided an allotment including this tract with several others in the State. As the area about the Boulder was not sufficient for necessary improvements, the New England Box Company of Greenfield, Massachusetts, recently deeded to the State by gift six additional acres. An adequate parking space, picnic tables and sanitary services will be provided by the Recreation Division of the New Hampshire Forestry and Recreation Commission.

Sculptured Rocks, in the Cockermouth River in the Town of Groton, N. H., are featured by deep potholes and basins worn in the solid rock. Near the river can be traced the ruins of old gristmills and sawmills, powered by water, which a century or more ago provided the neighboring towns with ground meal and lumber. This unusual spot of about eight acres was given to the State in 1935 by a former resident, Elinor C. Plummer, of Bristol, N. H. Public interest in Sculptured Rocks has greatly increased during the past years. About twelve acres adjacent to the State tract have been purchased to provide for adequate parking, picnic tables in groves of pine and spruce, and adequate sanitary units. This area is under the supervision of the Recreation Division and will provide one more wayside tract for the public.

WARREN F. HALE, *Chairman, N. H. Chapter Conservation Committee*

New Lease on Life for the Old Man. Chapter 352 of the 1957 N.H. Laws is a clear-cut, eight-line joint resolution appropriating \$25,000 "for the purpose of grouting the fissures on the mountain where the profile of the Old Man of the Mountain is located in order to protect this great stone face as a recreational asset to the state".

Because no solon would dare object to appropriating such a relatively small sum to prolong the lifetime of a natural trademark envied by every other state, the administration bill readily cleared the many hurdles of the N.H. General Court and became the law of the State.

Came the season of action, the summer of 1958, and a routine operation became a *cause célèbre*. Critics questioned where and how the protection should be provided and wondered whether the appropriation was sufficient to guarantee a worthwhile job.

Meanwhile, Weatherproofing Engineering and Products Co. of Revere, Mass., low bidder with an initial offer of \$9,889.50, proceeded with its mission to "pressure plug" the bottom of the main fissure with a quick-hardening agent to prevent leakage. Then the crack was capped with a plastic patch, which was deemed a more effective method than pressure grouting as originally considered.

Helicopter service, which had been used by the U.S. Forest Service to airlift materials for the Kearsarge North fire lookout and the Edmands Col Shelter on the Northern Peaks, was employed by the Bay State contractor to deliver more than 20 tons of supplies to a sandbag landing-site 500 feet above the Old Man.

The spectacular and hazardous aerial masonry job has many interesting features, including the installation of strain gauges calibrated to a sensitive measuring device attached to each of the four large tie-rods. These will secure the Profile's 300-ton upper forehead. Nineteen loose boulders above the Profile were fastened with flexible steel cables and eyebolts to prevent them from falling over the face.

Seams and fissures behind the forehead were sealed to prevent entrance of moisture. A concrete gutter was installed behind the Profile to divert surface water and reduce moisture penetration.

This first-aid treatment of the obvious aspects of the ailment cost about \$16,000. To prescribe any further safeguards, a clinic of eminent consultants is being selected to observe the patient and advise the State Recreation Division.

In his entire history the Old Man never received such attention as during the summer of 1958. Perhaps the same geologic forces that created him will now be less effective in their seemingly inevitable process of destroying him.

ROBERT S. MONAHAN

NATIONAL PARKS

Mountaineering Activities in 1957. From a summary of such activities in the Parks and Monuments for the calendar year 1957, prepared by the National Park Service,¹ we take the following interesting items of information. They give an excellent idea of the amount of climbing that goes on in these areas and of the measures taken by the Park Service to promote its safety.

Devil's Tower. A total of 13 parties, consisting of 52 individuals, successfully climbed the Tower. (In 1956 the record number of 123 did so.) There were no accidents. A rescue team consisting of the Supervisory Park Ranger and two seasonal rangers was organized at the start of the season and a limited amount of time spent in training and study of rescue techniques in which both permanent and seasonal rangers participated. The Safety Committee of the recognized climbing clubs, through its recommendation of qualified climbers and assistance in controlling unauthorized climbers, has contributed immensely to the enviable safety record during the year.

Glacier Park. A total of 397 visitors made climbs (as against 335 in 1956), with 163 of these making difficult ascents requiring special knowledge and equipment. Many mountains in the back country were climbed for the first time in many years. All prospective climbers are requested to register at the nearest Ranger Station, where they are shown route sheets of their proposed route and questioned to ascertain whether they possess the necessary qualifications to complete their climbs safely and successfully. A Mountain Climbing School was conducted on July 16 by Supervisory Park Ranger Douglas McLaren of Grand Teton for selected personnel at the cliffs near Avalanche Campground, and a similar one on July 24 at St. Mary by Fire Control Aide Clyde Lockwood. Avalanche Rescue Schools were conducted during April by Asst. Supt. Joseph and Gang Foreman Wohlbrandt at West Glacier and St. Mary. A party of three inexperienced climbers was rescued from Chief Mountain on July 16 by two rangers and a fire-control aide; the six men finally gained easy ground by roping down over a 60-foot overhang, using a sling-seat with carabiner.

Grand Teton Park. The number of successful individual climbers was 1,757, or 113 more than last year. There were 658 parties registered for climbs, of which 526 were successful parties, indicating a decrease in the number of unsuccessful ascents. An increase in novice and inexperienced climbers was noted. A total of 403 climbers attended the Petzoldt-Exum School of Mountaineering, as against 323 in 1956. In more detail, the Grand Teton was climbed by 480 persons, Symmetry Spire by 169, Storm Point by 136, Teewinot by 110, Icicle Point by 95,

¹ For a copy of this summary we are indebted to John M. Davies, Chief of Ranger Activities.

the Middle Teton by 92, the South Teton by 84, Disappointment Peak by 75, and other peaks by lesser numbers. (Mt. Moran by only 27.)

Registration was handled through the Jenny Lake Ranger Station, which was open from 7 a.m. to 7 p.m. daily, with a seasonal ranger quartered in the back of the station to handle night registrations and emergency calls. No changes were made in registration procedures. Three experienced seasonal rangers, well familiar with the climbing routes, were assigned the responsibility of registering climbers and inspecting their equipment. The public was informed of the need for safe mountaineering practices at evening talks at campfires and at the Jackson Lake Lodge. Cooperation of five organized climbing clubs (the Mazamas, Sierra Club, Univ. of Wyoming Outing Club, Wasatch Mountain Club, and Wisconsin Hoofers) was excellent during the season.

An extensive 5-day climbing and rescue training school was conducted early in July on the lower slopes of Symmetry Spire for all employees showing interest in gaining knowledge of rescue techniques. The development of several new evacuation methods was studied and these proved valuable later in the season. Five accidents occurred, in which the Park rescue team assisted in the evacuation of three injured persons and the bodies of two climbers who were killed. One of these deaths resulted from a breaking handhold, the other from a slip on an extremely difficult friction-pitch near the summit of the Grand Teton.

This year climbing parties which requested permission to attempt winter ascents were denied since they were unable to meet generally acceptable safety requirements.

Mt. McKinley, Alaska. Three parties, of 19 persons in all, climbed in the Park. (In 1956 there were 4 parties, of 18 persons.) Only one party, of 8 men, set out with Mt. McKinley itself as objective and this attempt, by the Muldrow Glacier, was unsuccessful. A new impasse had developed to hinder parties using this conventional route; there had been an unusual mass movement of ice during the 1956-7 winter, which was first discovered on a routine aerial patrol in the spring of 1957 and later examined by a glaciologist. Earthquakes were offered as one theory of its cause. Several large waves of ice moved down the glacier to the toe, resulting in great loss in the middle and upper portions. The reduction in ice volume, and the residual shelf left remaining in a most unstable condition, now complicate the Muldrow route. All McKinley climbing parties should consider routes other than this for at least two years.

Registration is required of all parties, and an inspection of food and equipment is made before the climb begins. A minimum party-size of four persons has been established as a safety measure, and all parties are informed of other basic safety requirements. The leader of the party must formally secure the services of a standby rescue party composed of no fewer than four experienced members, the leader of which has signed an agreement to render assistance if it becomes necessary.

Mt. Rainier. A total of 675 climbers started the Rainier ascent, of whom 373 were successful. (In 1956, 557 started and 406 succeeded.) Of the total, 514 were independent climbers, with 275 successful; and 161

were professionally guided, with 98 successful. The climbs were distributed over 12 different routes, of which 4 were new. Climbers' equipment and qualifications are checked during registration for summit climbs. Two accidents occurred on the summit routes, one resulting in a fatal injury from a fall into a crevasse. This is the first fatal accident in twenty-one years.

Rocky Mountain Park. A total of 1,143 ascents were made of Longs Peak, with 62 of these via the difficult east face. (In 1956 there were 1,596 ascents.) Park Ranger Frauson conducted the annual Mountain Rescue Training School on June 24 and 25, which was attended by 25 rangers and other personnel. Four rescue operations were carried out, but there were no fatal accidents.

Sequoia-Kings Canyon Park. (The High Sierra region.) The sign-in, sign-out procedure was publicized as being required for all difficult climbs, but the vast expanse of terrain in the Park contributes to the extreme difficulty of controlling and registering all climbers. A list was kept of Sierra Club contact points for their volunteer rescue climbing teams. Men from the Protection Division of the Park and some others attended a series of schools on rescue operations: a one-day indoor training program on January 16 on the fundamentals of mountaineering; an outdoor field training program on May 22 on rock climbing; and a program on May 23 in advanced climbing. On this last occasion a rescue problem was set up, using the new portable breakdown litter. The victim was taken off a boulderfield, over a face, and then lowered down another face to a ledge.

One of the most strenuous rescues on record was made on July 7-10 when an injured climber was brought down from the 12,500-foot level on North Palisade. The long distances involved, arduous terrain, cold weather, and the man's injuries complicated the rescue, with aerial support necessary to supply the rescue team. A helicopter was finally required in order to evacuate the injured man, although the terrain made helicopter operation quite hazardous.

Yosemite. A total of 1,185 persons, in 443 parties, registered for rock climbing. (In 1956 there were 751 climbers, in 232 parties.) Members of recognized mountaineering organizations were present in practically all parties and they were very cooperative in registering for climbs and in carefully checking in after returning. Several training classes were held to instruct and furnish practice in rock climbing and rescue work for both permanent and seasonal rangers, and the Yosemite rangers participated in a school held during the fall in connection with the National Park Service Training Center course. Five rescue operations, involving 11 climbers, were carried out; there were no fatal accidents.

On the Mission 66 program there was a great deal of construction activity. Very substantial progress has been made on overpasses and on the repaving of the Blue Ridge Parkway; the final repaving of the Shenandoah Skyline Drive has been completed; at Mt. Rainier some new spur roads have been built and repaving carried out; further progress on modernizing the Tioga Road in Yosemite has been made, and other important road projects completed.

In the Grand Teton National Park the new by-pass road on the east side of the valley has been finished and the new administration center at Moose started. New bridges have been built in Yellowstone and, following the recommendations of a study committee, the Park Service is planning to keep the east, south and west entrances, as well as the north entrance, open from May 1 to November 1. The Cooke City—Red Lodge highway will be kept open from June 1 to October 15, if possible. This will extend the Park season considerably.

At Mt. McKinley a start was made on the rebuilding of the main road in the Park and a new visitor-center was built.

Pursuant to the law passed last June, the Park Service is planning to start exchanges of land in Olympic National Park to acquire the private holding around Lake Crescent.

KENNETH A. HENDERSON

MONTALBANIANA

Cherry Mountain Landslide. Owl's Head, the northern extremity of Cherry Mountain, was the scene at 6 o'clock on Friday morning [July 10, 1885] of a destructive landslide, which followed the channel of Stanley Brook from the top to the bottom of the mountain, crossing the farms of John Bordreau and Oscar Stanley, and destroying the latter's new frame dwelling house, into which his family were to have moved the same day . . .

The morning opened with a severe thunder shower. Two carpenters, Moses and Clef MacDonald, and Mr. Stanley were at work before 6 o'clock, and Donald Walker was milking Stanley's cow in the stable. At 10 minutes past 6, in the midst of the thunder, a loud rumbling was heard by Stanley, who was near the door. He looked up the hill in the direction of the noise. Then with a shout, "Run, the mountain's coming down!" he rushed for the road. The carpenters were out of the window in an instant. In another moment they were all across the road and over the fence. Then came a crash, added to the deafening roar of the avalanche, and the house was lifted from the ground, whirled round and round in the air, and the detached sides and roof were hurled after the men, falling at their feet. As the dust lifted they saw that the stable too had fallen, and lay a wreck before them. The roof lay within a couple of feet of the ground. Only one corner was open, and the space beneath was filled with debris. Crawling in at that corner Stanley discovered Donald Walker's head just visible amidst the wreck. A great stump lay across his shoulder, and on his back was a boulder. By superhuman strength, aided by the excitement of the moment, Stanley lifted the load that held the poor fellow down and dragged him out more dead than alive.¹

The Frenchman Bordreau's house stood almost in the track of the avalanche, and all that saved it was a slight bend in the channel of the brook a little way above. Bordreau was asleep at the time and was awakened by the rumbling, which he at first took for thunder. But he soon realized his mistake, as the roar increased, and stepping to the window he saw the slide sweep by him with frightful velocity, the main

¹ Walker later died of his injuries.

Montpelier & Wells River Railroad

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TO VIEW THE

LAND 
 SLIDE

On Sunday, July 19th, 1885

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body of the mass coming within 50 feet of the house, while the debris was hurled to within 20 feet of the door.

At Stanley's place, after the injured man had been cared for, search was made for the livestock, and one cow was found alive, buried up to her neck in mud in the rear of the stable. A horse was taken out alive from the wreck, but all the other animals—three cows, a calf, two hogs, and a pig—were killed.

The representative of *Among the Clouds* drove to the scene within a few hours after the occurrence. There was truly a scene of desolation. Through the best portion of the farm there was a deep cut, where the forces of nature had ploughed a tremendous furrow through the dark, rich soil, upheaving a huge bank on either hand. In the road were strewn the remains of the house, and in the field beyond lay the wreck of the barn. The road was wholly impassable; a sea of mud thickly intermingled with logs and boulders, spreading out to a depth of perhaps a dozen feet over an area of twenty acres, obliterated all trace of the highway as well as a good share of the field.

Looking up the mountainside the fresh track of the slide could be traced clear to the summit, following the bendings of the ravine. We walked up the hill through the pasture and took a closer view of the upper portion of the track. Here it appeared like a huge railroad cut inclined at a sharp angle, having its sides as clean-cut as if excavated with a steam shovel. The ravine was deepened fully 20 feet in many places, and widened even more, so that it would average 150 feet in width, with its depth running all the way from 30 to 75 feet. The higher up we went the wilder grew the scene. The avalanche had cut so deep as to expose the bare ledge, over which poured the swollen stream.

The slide traversed a distance of two miles and, by all accounts, inside of two minutes. "No railroad train ever came as fast as that slide," said Mr. Stanley. "When it approached the house it towered up higher than the tops of the trees, the front of it rolling over and over as it moved. We could feel the earth shake as it passed us." "The slide went so fast," said one of the eye-witnesses, "that there was only one crash when the house and the barn went over."

The question is on everybody's lips, "How does this compare with the Willey slide?" The fact is that there is no comparison, either in extent or in destructive results. The latter was the sliding off of a whole mountainside, stripping it not only of trees but of the soil itself. This slide was confined within the limits of a narrow ravine; it did not go so deep as the Willey avalanche, and the only trees removed were those on the borders of the gully. It is, however, so far as we are informed, the only slide that has endangered life since the Willey calamity.

Among the Clouds, July 11 and 13, 1885.

(For the railway poster reproduced herewith, we owe our thanks to Richard G. Wood, of the Vermont Historical Society.—ED.)

BOOK REVIEWS

Avalanche! By Joseph Wechsberg. New York: Alfred A. Knopf, 1958. 254 pages, 3 maps. \$4.00.

To those who climb rugged mountains and to those who live on their slopes avalanches are as much a part of life as thunderstorms. In some places in Switzerland and Austria, for example, sites of recurring slides are named, and so assume sinister personality. They are like ferocious beasts, sleeping through many winters, then, when certain conditions occur, awakening to pounce on unwary climbers and villagers below. In this book Joseph Wechsberg recreates two such avalanches and what they did on January 11, 1954, to the tiny village of Blons, high up in the Grosswalsertal in western Austria.

First, however, the author spends considerable time describing avalanches in general, and telling how the newly established warning system attempts to predict them. This makes for a rather slow and confusing beginning, interspersed as it is with references to what did—or did not—happen in Blons. Finally, in Chapter 9, with an excerpt from a Blons schoolgirl's diary, the tempo quickens and thereafter the reader's interest is held compellingly for the rest of the book. Basing his account on records and interviews in Blons, the author traces what happened on that disastrous day and the agonizing days of rescue with apt description and revealing eye-witness comments. The stark statistics—one sixth of the total population killed, many more maimed, one third of the houses destroyed—are clothed with personal reality as the author tells what happened to certain key figures.

Three sketch maps at the front of the book serve to locate Blons and the Grosswalsertal in Austria, and to show the paths of the avalanches through the village of Blons.

ABIGAIL AVERY

The Lost World of the Caucasus. By Negley Farson. Garden City: Doubleday & Co., Inc., 1958. 152 pages, 17 photographs, index. \$4.00.

A valuable and interesting "last look at a lost world"—that of the Caucasian tribes as, in 1929, Mr. Farson and his companion, Alexander Wicksteed, came to know them, many now deported to the wastes of Siberia, some (750 families of the Kalmucks) given land in Paraguay. Not a book of climbing, rather of background to the peaks of the "Frosty Caucasus" with the country leading up to them, the Klukhor Pass, and always and most important the people themselves. Good photographs but only moderately well reproduced.

ANNA E. HOLMAN

BRIEFLY NOTED

Interpreting Our Heritage. By Freeman Tilden. Chapel Hill: University of North Carolina Press, 1957. 110 pages, 42 photographs, index. \$3.50.

A well-done, thoughtful book setting forth basic principles upon which good interpretation of national and state parks, museums and

historical areas may be built. Emphasizes that historical, geological, archaeological truth alone is not enough to help the over 250 million people, who visit such yearly, move from just aesthetic appreciation (as of, say, Crater Lake) or from intellectual understanding (as of Fort Frederica, Georgia) to a deep and personal enrichment "of mind and spirit". Prepared under the guidance of Ronald F. Lee, Chief, Division of Interpretation of the National Park Service. Of interest to professionals and to laymen who care to see behind the scenes.

The Tamworth Narrative. By Marjory Gane Harkness. Freeport, Maine: Bond Wheelwright Co., 1958. 336 pages, many old photographs, 2 old maps, color frontispiece of painting by Ralph Miller, index. \$4.75.

An account of the whole Tamworth region of New Hampshire from its beginning as forest wilderness; sponsored by the Tamworth Foundation and the Tamworth Historical Society; based on town and state archives and on "oral testimony out of living people's memories". Long, sometimes not exciting in style; yet a valuable work, interesting especially to the many who have known and loved this region in the shadows of the Ossipees and the Sandwich Range.

America's Natural Resources. Edited by Charles H. Callison. New York: The Ronald Press, 1957. 211 pages, appendices, index. \$3.75.

Written for "the vast majority of responsible citizens" to give them "an informed approach to the problems of conservation". It contains eleven clear articles dealing with our major natural resources—soils, water, grasslands, forests, wildlife, fish, parks and wilderness, together with general aspects of the whole problem, e.g., "A Natural Resources Policy"—and shows where the "principal dangers lie, what has to be done to meet them, and what still urgently needs to be done". Covers a wide area in small compass.

Sonnets of the Shoals. By William Plumer Fowler. Boston: Bruce Humphries, Inc., 1958. 20 pages. \$1.00.

Fourteen sonnets and two triolets brought together, all but two, from previous published sources. "Like a long convoy on the sea's blue rim,/ The Isles of Shoals file gray. . . ."

PUBLICATIONS OF N.H. STATE PLANNING AND DEVELOPMENT COMMISSION:

Sands of the Merrimack Valley. Preliminary Report. By Lawrence Goldthwaite. 1957. 10 pages. 50¢.

The Geology of the Hanover Quadrangle. By John B. Lyons. 1958. 41 pages, illustrations, map. \$1.00.

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